

January 2026

Stream On: The Future of UK TV

A report for Sky
prepared by Oliver & Ohlbaum Associates Ltd



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Summary

In its near-100-year history, TV has grown from a single black-and-white channel into a world of TV platforms – from analogue to satellite and cable, DTT, and now internet-delivered TV. With each technological shift, audiences have gained more ways to watch and more services and content to enjoy. By 2024, **94 per cent** of UK adults had access to the internet at home, and **92 per cent** of viewers were using a video on-demand (VOD) service¹.

Internet connectivity continues to drive change. Internet-delivered TV offers a more flexible and enriched viewing experience compared to content delivered over technologies like DTT. Different products like Sky Glass, Virgin Media Flex and Freely allow viewers to move seamlessly between live TV and on-demand services from UK and international providers. Legislation ensures that the UK's Public Service Broadcaster's channels like BBC One or Channel 4, and soon their players like BBC iPlayer and ITVX, remain appropriately prominent in these environments.

94% of UK adults had home internet access in 2024, and 92% of viewers used a VOD service

The benefits of internet-delivered TV

As part of our research, we gathered audience opinions through an online survey and consumer workshops across the UK, and views are clear: the future of TV is bright.

Audiences appreciate how internet-delivered TV has significantly expanded their access to a wide range of high-quality content and services. Many workshop respondents particularly valued the broader range of programmes offered by VOD services and the growing number of internet-based TV channels, giving viewers far more control over what and when they watch. Rather than being restricted to a small number of channels, audiences can now tailor their viewing to their preferences, moods, and routines – with access to a diverse range of high-quality content that was unimaginable twenty years ago.

Depending on what sort of mood you're in, there's always something to watch. There's something light-hearted, there's a crime drama, a feel-good film that you know from your childhood. You'll always be able to find something to watch... If I've got a notion to watch a certain series, or a film, I know I'll be able to find it

I remember 10 or 15 years ago being off home sick from school and you just had to watch what was on... but now you can kind of watch what you like, high quality stuff

Workshop participants

Internet-delivered TV also brings new functionality. From our online survey, **93 per cent** of connected TV users² value its features such as 'watch from the beginning' and 'pause and rewind'. This rises to **99 per cent** among those aged over 70, demonstrating how the increased accessibility, discoverability and personalisation afforded by internet-delivered TV is particularly valued by older viewers.



'Watch from beginning' was seen as the most useful IPTV feature in our online survey

Workshop participants were also very positive about features that have improved accessibility. Digital accessibility experts, AbilityNet, emphasised how the latest generation of voice control has been transformative for some older and disabled viewers who struggle with traditional TV interfaces: "Sky's latest remote control has 'Voice Control'

¹ Ofcom, *Online Nation*, 2024

² We refer to connected TV users and non-connected TV users. The former includes users of hybrid TV services such as Sky Q

which enables someone to speak into the remote control and tell the TV to change channels and perform other tasks ... this is progressive and something for other companies to aspire to.”³

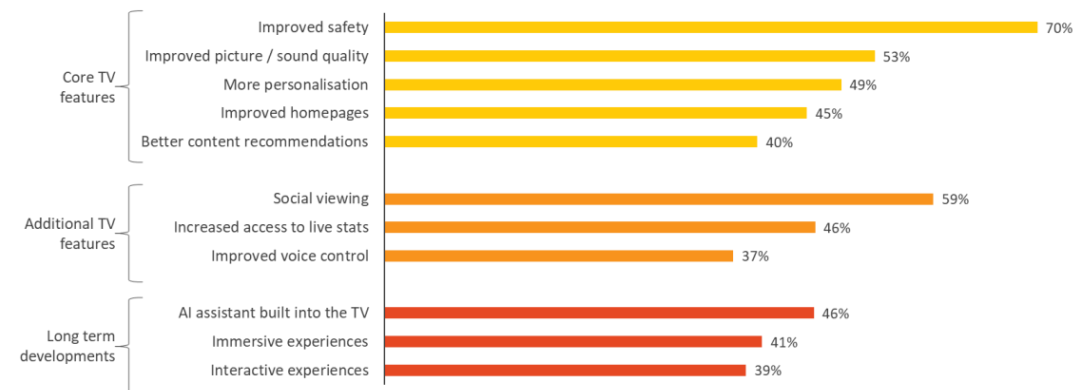
Where is TV going next?

Our workshops and survey results show that the innovations that excite consumers the most are those that enhance the core TV experience and what makes it different from other entertainment or social media – the opportunity to lean back and relax, high quality picture and sound (the ‘big screen’ experience), communal viewing, and a safe and trusted environment. Consumers would also welcome innovations that make the current experience even smoother and easier: subscription bundling; a single, aggregated UI; more personalisation. The Figure below shows our survey results.

Consumer excitement around improvement to core TV features

Which of the following potential new TV features are you most excited about?

% of respondents using internet TV, (n=787)



Note: Those currently using internet-delivered TV. Percentage of respondents in each age band selecting 5 or 4 on a scale of 1-5
Source: FlyResearch (2025; n=787), Oliver & Ohlbaum analysis

70 per cent of survey respondents were interested in safety features, which refers to tools available on connected TV like parental controls and family settings. Workshop participants, especially those with children, valued how TV can provide a safe viewing environment.

Meanwhile, **53 per cent** of online survey respondents were enthusiastic about advancements in picture and sound quality, such as Ultra High Definition (UHD) and Dolby Atmos. Additionally, **49 per cent** valued smarter, more personalised interfaces, while **45 per cent** highlighted the importance of improved homepages.

We're not getting linear progress. What we're getting is a circle coming back. People are saying we've got too many apps to manage so what we want is a screen where it's easy to choose

Ian Whittaker, Analyst

In addition to core TV improvements, audiences expressed interest in enhanced social features, with nearly **60 per cent** excited about social viewing. Looking further ahead, long-term innovations such as AI assistants (**46 per cent**)

³ <https://abilitynet.org.uk/news-blogs/how-tv-becoming-more-accessible-people-who-are-visually-impaired>

and immersive or interactive experiences (**41 per cent** and **39 per cent**, respectively) are generating growing interest, particularly as technologies mature and become more available.

This wave of innovation is only just beginning

TV platforms are innovating rapidly in content discovery, search and recommendation systems starting to be enhanced by Large Language Models (LLMs). Voice control and AI assistants will transform TV interaction, enabling real-time conversations, personalised recommendations and accessibility features. Robin Christopherson MBE, Head of Digital Inclusion at AbilityNet, noted that AI on the TV could soon deliver real-time audio description and live captions in any language, transforming accessibility.

As these tools evolve, user interfaces may move away from highly structured menus towards personalised, dynamic environments – offering consumers related videos, games, music, and more.

You'll still have a home page with all your top stuff, and it'll be personalised and targeted, but a lot of functionality is going to be superseded by AI assistants

Fraser Stirling, Sky and Comcast Global Chief Product Officer

AI may be used to radically transform content itself, enabling hyper-personalised and immersive viewing. Partnerships between broadcasters and right holders could enable viewers to customise what they see in real time – replacing athletes with avatars of friends, celebrities, or even Minions! These developments blur the line between watching and co-creating content.

Immersive experiences, I picked that because I spent ages trying to get my son Oasis tickets and this would be the next best thing

Could you imagine being able to... go along to Glastonbury virtually. You can pick the stage that you want to watch... You'd be sat there in your lounge with your wellies on

Workshop participants

How should the UK navigate the transition?

By the mid-2030s, most viewers will have fully adopted internet-delivered TV. If there was a planned switchover announcement around 2027, by 2034 we anticipate that there will be around 330,000 who either cannot, or choose not to, have IPTV or a broadband connection, including those from vulnerable groups.

Government's policy focus must therefore be on ensuring that the UK population and the TV sector are prepared for a connected TV future so that, regardless of the distribution technology used, all viewers are able to easily find the content they love.

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Introduction

1 Introduction

Sky has commissioned this report from Oliver & Ohlbaum Associates (O&O). We offer an independent, audience-led view of the future of TV in an increasingly internet-based world. We ask what audiences value in internet-delivered TV today, what innovations they're excited about, and how an internet-delivered TV future can play its part in the UK's overall digital transition – with wider societal and economic benefits to be unlocked.

This report comes in the context of a growing debate around the future of TV distribution in the UK, with the Future of TV Distribution stakeholder forum, chaired by DCMS, established to support a coordinated and collective approach on the issue. As a contribution to the wider discussions, we look at some potential challenges and solutions and how a UK-wide transition to internet-delivered TV can be inclusive, helping to realise the opportunities for all.

1.1 Methodology

We have used a range of quantitative and qualitative research to develop a balanced view of the future of television:

- **Literature review and market data analysis:** including product innovations and viewing and distribution developments in the UK and internationally
- **National consumer survey:** of 1,000 UK TV viewers – nationally representative of 18-79 year olds – about current viewing habits, what they value most about TV and attitudes towards future developments. Conducted with our partner, FlyResearch
- **Consumer workshops:** to explore different consumer perspectives in greater depth. The three workshops were 'IPTV enthusiasts' (Glasgow), 'IPTV agnostics' (Leeds), and 'limited IPTV access' (Devon). in collaboration with The Knowledge Agency
- **Expert interviews:** to gather additional insights on the future of TV from consumer, product and technical perspectives

More detail on our methodology is in the Appendix.

1.2 About O&O

O&O is a leading independent advisor in the media, entertainment and sport sectors, with complementary practice areas in policy and economics, strategy, investment and commercial advisory. We work across the media landscape, including film and TV, radio and audio, news and online – giving us a deep understanding of market and policy developments and consumer needs and expectations. We have supported policymakers, broadcasters, TV platforms and major online platforms in forecasting the future of TV – exploring potential end-states, key drivers, and implications for the sector and for consumers.

1.3 The State of the Nation

We begin this report by setting out the state of the UK TV ecosystem. We provide a brief overview of where the industry is today and where it appears to be heading, before looking at what the future holds for TV in more detail.

1.3.1 The UK TV sector has established itself as a global success story

UK television punches well above its weight, driven by a complex and finely balanced ecosystem including production, broadcasting and VOD services, TV platforms, distribution systems and devices. Together they have driven innovation in content, TV technologies, products and business models.

The UK is a global hub for creative talent and skills, exporting UK culture and creativity to the world

The UK AV sector has established itself as a leader in technological innovation and intellectual property creation, and more broadly as a global hub for filming and production, creative talent and skills. Overall, the UK's creative industries contributed a Gross Value Added (GVA) of £124.0 billion to the UK economy in 2023, accounting for 5.2 per cent of overall UK GVA⁴ and provided 2.42 million filled jobs (7.1 per cent of the UK's total).⁵ Through screen clusters, the TV sector spreads economic and social benefits across the Nations and Regions.⁶

The strength of the UK's audiovisual sector supports the UK's export success and international competitiveness and growth. 2022/2023 was another exceptional year for UK television exports, up 23 per cent on pre-Covid 2019/20 levels to £1.812 billion.⁷ Meanwhile, the global reputation of the UK's domestic industry attracts inward investment. In 2024, high-end television (HETV) and film production attracted £4.65 billion to the UK.⁸

In its November 2024 'Invest 2035' industrial strategy, Government has recognised the creative industries as a source of global comparative advantage for the UK and one of eight priority sectors for driving growth. These are the sectors 'in which the UK excels today and [that] will propel us tomorrow', and that 'present the greatest opportunity for output and productivity growth over the long-term' across the nations and regions.⁹ In order to achieve sustainable, inclusive and resilient growth, the strategy aims to tackle barriers to investment and the creation of high-quality jobs. This includes spurring the adoption and diffusion of digital technologies. Sky research supports this, finding that the 'UK Media and Entertainment Sector has the potential to be worth an additional £10 billion a year by 2033 – rising from £43 billion in 2021 to £53 billion in 2033, and equal to an additional 40,000 British jobs'. In addition, it anticipates that 'international demand for British content is set to grow by a staggering 50% by 2033'.¹⁰

The TV sector has a history of embracing innovation, which has helped get us to where we are today

Television has come a long way in its nearly 100 years of broadcasting, evolving from a single black and white channel to the array of choices we enjoy today. This has been enabled by continuous innovation in distribution technologies from the roll out of cable TV, the launch of TV satellites, the analogue-to-digital switchover, and the rise of internet-delivered TV (or 'connected TV'). Each phase has brought new capabilities and required consumers to adapt, but the trend has consistently been towards greater choice and improved quality. Accessibility has also increased; in

⁴ DCMS Economic Estimates GVA 2023 (provisional), published 26/02/25

⁵ Economic Estimates: Employment in the DCMS sectors, January 2023 to December 2023, published 20/12/24

⁶ Oliver & Ohlbaum Associates, Screen Sector Clusters: Securing Sustainability and Growth, February 2025

⁷ Pact UK TV Exports Report 2023-24

⁸ BFI Research and Statistics Unit

⁹ Invest 2035: the UK's modern industrial strategy, 24th November 2024

¹⁰ Sky, Powering Creativity, 2022

response to Ofcom's survey, the share of VOD services offering subtitles and audio description continues to rise, as well as the share of content covered.¹¹

Beyond more channels and services, the way audiences interact with television has also changed – from teletext and the Red Button to a range of internet-enabled features such as live restart. Many households have shifted from communal viewing around a single living room TV to personalised consumption on individual profiles across multiple services. Content is increasingly being watched on non-TV devices even within the home, with Ofcom reporting that 16 per cent of in-home video viewing in 2024 occurred on devices other than a television.¹² Advances in picture and sound quality, Ultra High Definition (UHD), Dolby Atmos, and DTS:X have made viewing more immersive. Features such as voice control are becoming more mainstream, and ongoing innovation continues to enhance the viewing experience.

Internet connectivity has become the engine of TV innovation

Delivering these innovations to audiences increasingly depends on internet connectivity. As illustrated in **Figure 1**:

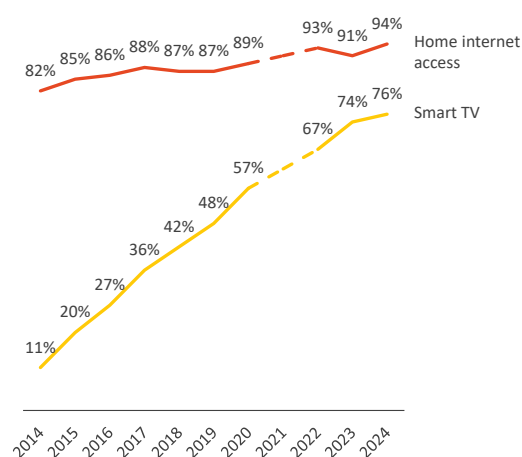
- 94 per cent of adults have home internet access
- 76 per cent own a smart TV
- The proportion of adults with internet-delivered TV on their primary TV set is even higher when including all connected devices (e.g. streaming sticks, smartphones and computers)

Between 2018 and 2023, the share of TV households with internet-delivered TV on their primary set rose from 74 per cent to 86 per cent. This figure includes hybrid households (linear channels over broadcast and on-demand services over IP), fully IP-based TV services, and OTT-only households. When including broadband-connected homes that haven't yet connected their main set, this figure rises to 94 per cent.

Figure 1: How internet penetration and TV distribution have evolved

Penetration of home internet access and smart TVs, 2014-24

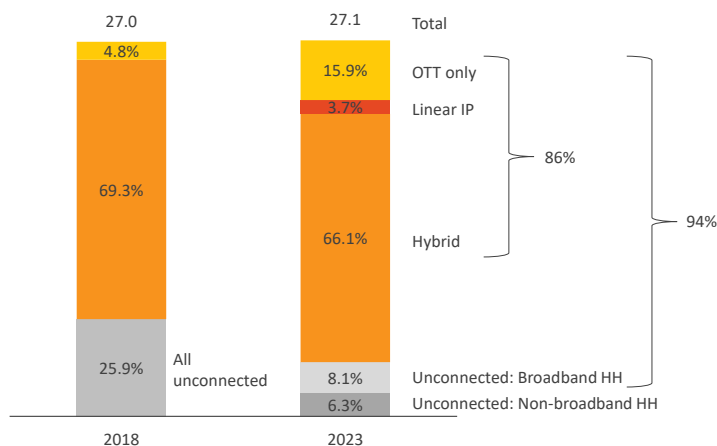
% adults 16+



Note: 2021 data unavailable
Source: Ofcom CMRs, Oliver & Ohlbaum analysis

TV HHs by distribution technology, 2018 vs 2023F

Millions HHs



Note: Primary TV set. Unconnected refers to those TV sets with no connection to IP-delivered video
Source: DCMS Future of TV Distribution, Oliver & Ohlbaum analysis

¹¹ Ofcom, *Television and on-demand programme services: Access services report – January to December 2024*, May 2025

¹² Ofcom *Media Nations 2024*

Internet-delivered TV is not just for the younger generation

As broadband penetration and connected TV ownership continue to rise, the shift towards streaming and on-demand viewing accelerates. The broadcast industry once saw consumer viewing habits follow the "life stage effect", with people naturally watching more linear TV as they aged due to life changes like having children or retiring. Indeed, viewing data from 2003 to 2016 show that older generations adopted viewing habits of previous generations.

However, from 2016 to 2023, this trend reversed, with the 65+ age group declining in linear TV usage from 2021 to 2024 for the first time.¹³ The rise of streaming services and video-sharing platforms has led to older viewers starting to adopt the viewing habits of younger generations – watching more IP distributed content and less linear TV. Moreover, with increasingly affordable devices and IP-based platforms to upgrade current TVs, and the periodic replacement of existing sets, the migration towards online-first TV distribution is accelerating.

1.3.2 Overall TV viewing remains high in this changing landscape

While total live TV viewing is declining, total video viewing time has increased over the past decade. As shown in **Figure 2**, the difference lies in *how* consumers access content, with increasing viewing online and on-demand – alongside sustained strong live TV audiences for major events such as live sports and significant cultural moments.

UK broadcasters have responded to shifting audience behaviour by investing heavily in their VOD services, such as BBC iPlayer, ITVX, Channel 4's streaming service and NOW, ensuring they continue to meet audiences' evolving viewing preferences. Given the strong growth in viewing to 'other online video',¹⁴ broadcasters are also innovating on Video Sharing Platforms (VSPs) and social media. This is especially to deepen engagement with young audiences – examples are ITV channels, clips and fan content on YouTube, and Channel 4 News on Facebook and TikTok. TV platforms are increasingly presenting YouTube for viewing on the TV set.

No other medium can deliver premium long-form content that millions of people around the UK want to watch; this is what makes TV unique

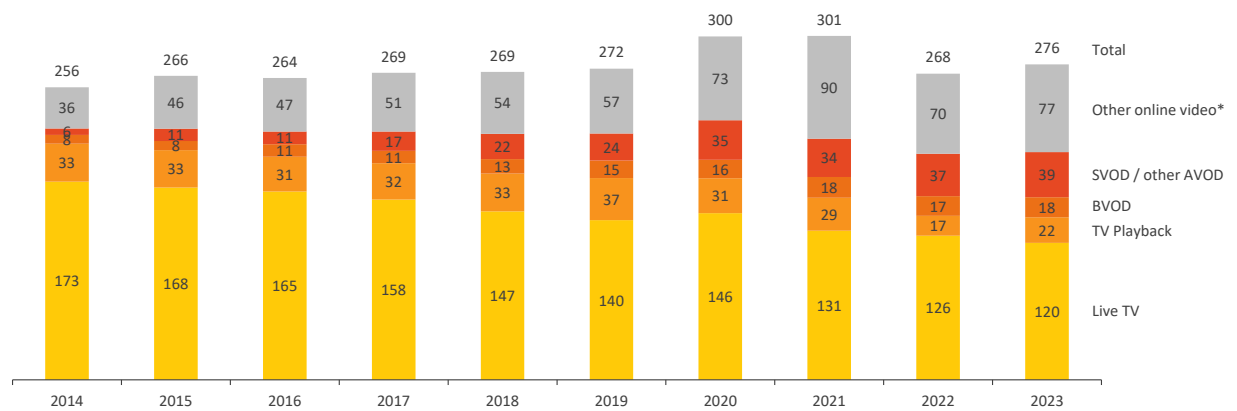
Ian Whittaker, Analyst

Not only is TV the ultimate entertainment medium, but it also continues to play a key role in fostering social cohesion, educating audiences of all ages and, in a world increasingly concerned by fake news, it is a source of trusted information.¹⁵

¹³ Enders analysis

¹⁴ Ofcom Media Nations, 2024

¹⁵ The top most-trusted brands in Reuter's *Digital News Report 2024* were nearly all TV broadcasters. 1st BBC News, 2nd Channel 4 News, 3rd ITV News, Sky News ranks joint 5th

Figure 2: UK daily average viewing time by type, individuals (4+), 2014-2023, minutes/person/day

Note: *Other online video includes online platforms such as YouTube, Tiktok and Facebook as well as online adult video
 Source: Thinkbox, Oliver & Ohlbaum analysis

The explosion in content choice has led to a further wave of innovation by TV platforms

The rise of VOD services has dramatically expanded the choice of services and content available to audiences. Forty years ago, viewers had a choice of four television channels. Twenty years ago, this grew to around 30-140 channels depending on their service provider. Today, consumers can access a vast library of content across hundreds of general and niche interest VOD services, together with free ad-supported television (FAST) channels and VSPs such as YouTube.¹⁶ While this abundance offers unprecedented choice, it has also introduced new challenges, particularly around choice overload and search fatigue. A study by Currys in April 2024 found that people who watched TV every day were spending 30 minutes on average a day deciding what to watch – equivalent to just over seven days lost annually to ‘choice paralysis’.¹⁷

In response, TV platforms have been bringing services together in one place and streamlining navigation. New UK originated products such as Freely, Sky Glass and Virgin Stream have entered the market, while established global platforms like Roku, Apple TV, Google TV and Amazon Fire continue to refine their interfaces and become more affordable. Platform innovation has been primarily aimed at delivering on two core objectives:

- Expanding and improving **access** to the full range of services, content and features available through internet-delivered television, all in one place
- Improving content **discovery**, by integrating traditional linear TV, VOD services and FAST channels in seamless, user-friendly interfaces

The most important thing when you're making anything, is you need to know who you're making it for ... taking Sky Glass as an example, the whole idea is that it's the best possible experience for the most possible people

Fraser Stirling, Sky and Comcast Global Chief Product Officer

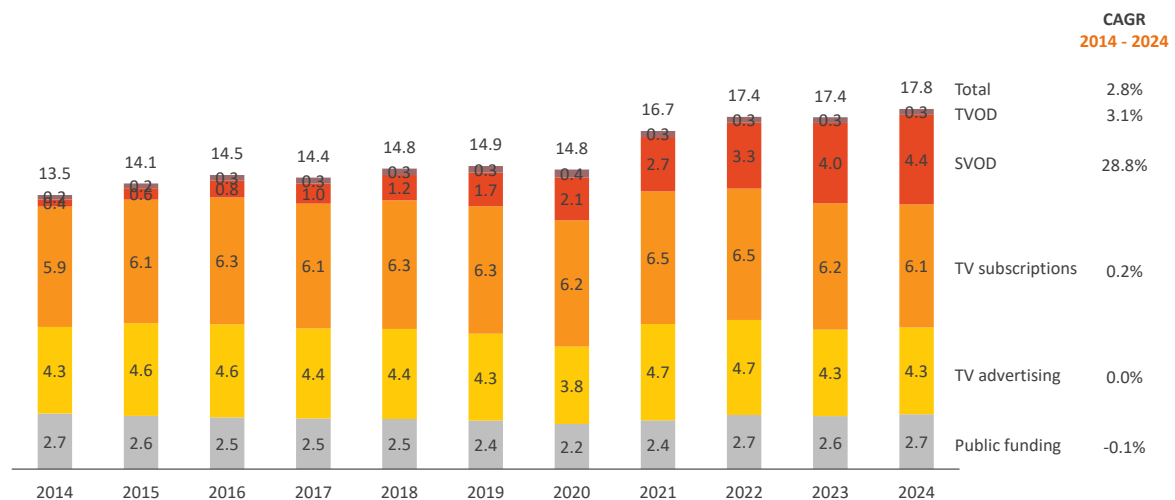
¹⁶ Free advertising-supported streaming television

¹⁷ Advanced Television, Survey: Brits spend 182hrs per year searching for content, 10th April 2024 <https://www.advanced-television.com/2024/04/10/survey-brits-spend-182hrs-per-year-searching-for-content/>

1.3.3 The UK TV ecosystem is healthy, but challenges lie ahead

As shown in **Figure 3**, total UK TV sector revenues grew strongly from 2014 to 2024, a period which included a strong rebound following the Covid-19 pandemic. However, from 2022, economic pressures – including high inflation and reduced advertiser and consumer spending – affected TV advertising, pay TV, SVOD, and public funding. TV advertising revenues stabilised in 2024 but have remained flat in nominal terms since 2014. Adjusted for inflation, this means the UK's TV advertising sales houses – ITV, 4Sales and Sky Media – earned 25.3 per cent less in real terms in 2024 than a decade earlier,¹⁸ reducing broadcasters' capacity to reinvest in content production.

Figure 3: TV revenue by source, 2014-2024, £bn



Note: Excluding other TV revenues such as shopping
Source: Ofcom, PwC Global Media Outlook, AA/WARC, Oliver & Ohlbaum analysis

Content investment outpaced revenue growth between 2015 and 2024, with total spend rising at an average annual rate of 7.3 per cent.¹⁹ SVOD and multichannel investment in premium content was important to this growth, such as Sky's *The Day of the Jackal* and inward investment such as HBO's *House of the Dragon*. Meanwhile, the PSBs continued to provide a firm foundation as the main investors in original programmes and across a range of genres.²⁰ While content investment rebounded post-pandemic, commissioning subsequently slowed globally due to economic pressures, inflation, and industrial action in the US. The UK TV sector must be able to invest and innovate in an increasingly competitive global landscape to ensure that UK audiences continue to enjoy a diverse range of high-quality content and viewing experiences.

1.3.4 The transition to internet-delivered TV for all

Greater adoption of the internet and online services provides opportunities for efficiency, growth and wellbeing across the UK. Public and private sector services are moving further towards digital, from Government services to banking, travel tickets, education and culture. TV is just one manifestation of this shift. TV can play its part in this wider transition, furthering the government's commitment to narrow the digital divide.

¹⁸ Bank of England

¹⁹ Ampere Analysis – content spend includes originations and acquisitions, excluding spend on sports rights. 2015-24 CAGR used since SVOD spend data is unavailable for 2014

²⁰ O&O, Pact Census 2024

As television moves towards an internet-delivered future, the supporting infrastructure must keep pace. The UK is considered to be on track to achieve nationwide gigabit broadband coverage by 2032,²¹ and Government is committed to tackling digital exclusion, with its February 2025 Digital Inclusion Action Plan highlighting the importance of ‘digital inclusion’ for ensuring equitable access to opportunities and key services.²² Potential barriers to adopting internet TV include the affordability of a reliable internet connection, the digital skills and confidence to use online services, and disinterest – being comfortable with existing ways of doing things.²³

As outlined in this report, IPTV has already brought significant improvements to the viewing experience, with most of the population having migrated in some form. For those yet to make the transition, it is essential that industry and policymakers work together to ensure a smooth and inclusive shift at the appropriate time. Doing so will deliver wider benefits for UK society and the economy. The remainder of this report provides an evidence base to inform ongoing policy discussions around a potential IP switchover.

²¹ Building Digital UK Annual Reports and Accounts 2024 to 2025

²² *Government Digital Inclusion Action Plan: First Steps*, published February 2025

²³ Ofcom Adults’ Media Literacy Tracker surveys 2024

What do audiences think of
connected TV?

2 What do audiences think of connected TV?

We spoke to consumers and experts to understand what people love most about the internet-delivered TV features they use now. TV clearly continues to hold a unique role in the nation's homes and entertainment habits, and its evolution in recent years – driven by internet connectivity – has greatly enhanced it for many.

2.1 Internet-delivered TV has brought greater freedom and choice

In our workshops, audiences across the UK consistently told us they value the freedom that internet-delivered TV provides – particularly the ability to watch what they want, how and when they want. Features like 'live restart' and 'watch next', while no longer novel, have become integral to everyday viewing and were widely appreciated.

Depending on what sort of mood you're in, there's always something to watch. There's something light-hearted, there's a crime drama, a feel-good film that you know from your childhood. You'll always be able to find something to watch... If I've got a notion to watch a certain series, or a film, I know I'll be able to find it

Workshop participant

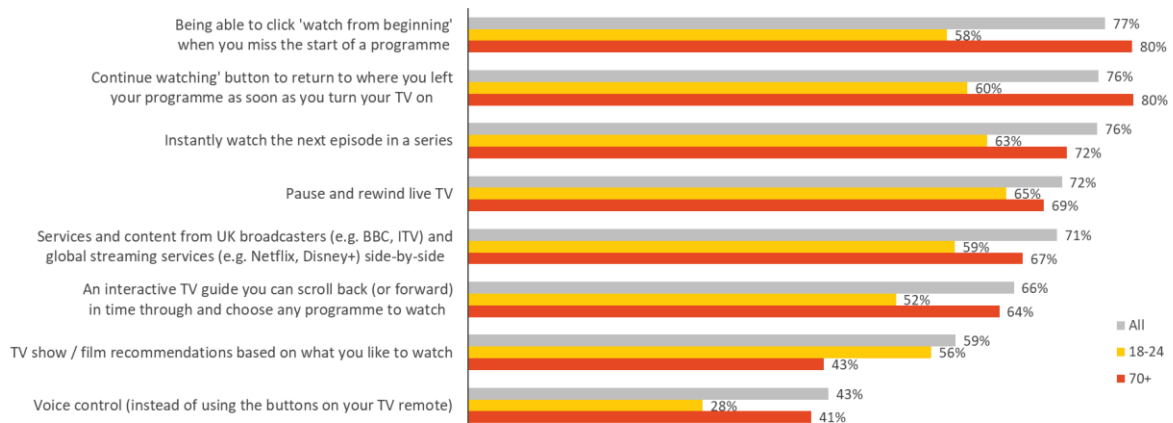
I remember 10 or 15 years ago being off home sick from school and you just had to watch what was on... but now you can kind of watch what you like, high quality stuff

Workshop participant

This was reinforced by our nationally representative survey (**Figure 4**), where 'anytime' features (such as 'watch from beginning', 'continue watching') and aggregation were seen as extremely useful among connected TV users.²⁴ 71 per cent of these respondents highly valued the broader range of content and services offered by internet-delivered TV – a finding that was echoed in Ofcom's 2024 Online VOD survey.²⁵ Our survey respondents also clearly valued features that enhance and provide more flexibility in the traditional linear TV experience, such as pause and rewind TV, which was rated as highly useful by 72 per cent.

Figure 4: Perceived usefulness of different internet TV features, connected TV users, by age group

Which of these features of internet TV do you find the most useful?
% of respondents using internet TV, (n=787)



Note: Those currently using internet-delivered TV. Percentage of respondents in each age band selecting 5 or 4 on a scale of 1-5
Source: FlyResearch (2025, n=787). Oliver & Ohlbaum analysis

²⁴ In this report we refer to connected TV users and non-connected TV users. The former includes users of hybrid TV services such as Sky Q

²⁵ Ofcom's 2024 Online VoD survey found that 73 per cent of viewers aged 13+ strongly agreed with the statement 'Video on demand services allow me to watch a greater variety of content'

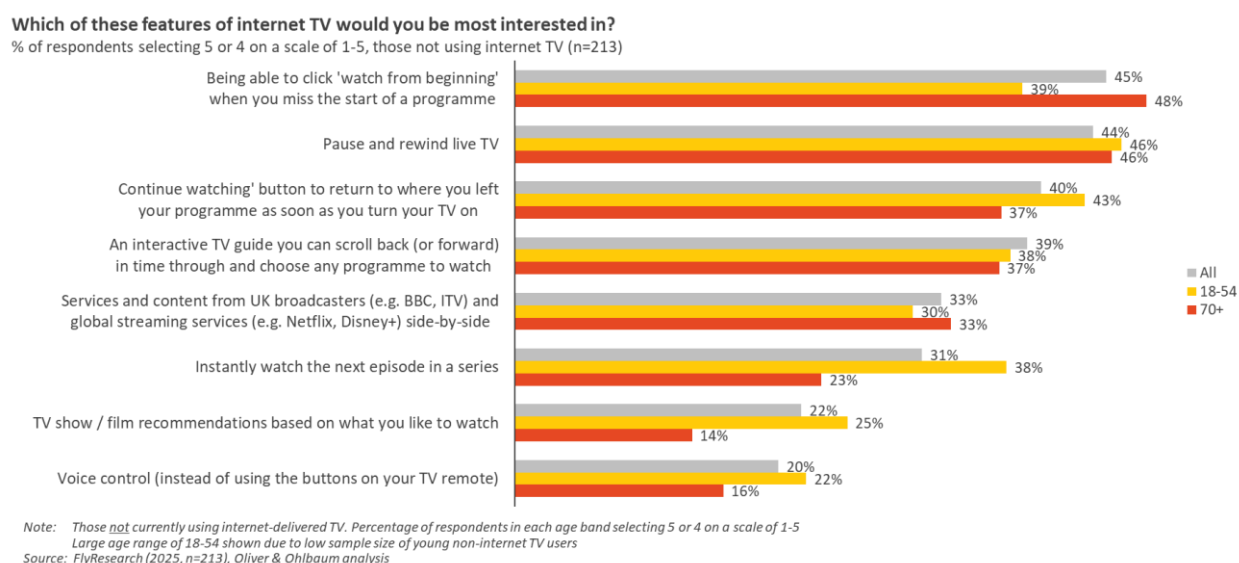
Connected TV can have a transformative impact for older audiences

Older users of connected TV, particularly those aged 70 and over, clearly recognise its value. As shown in **Figure 4**, this age group was more likely than young users to rate features useful or very useful, and rated some features more highly than any other demographic. This was true for tools that enhance linear TV like ‘watch from the beginning’ and ‘continue watching’, but also for VOD (‘instantly watch the next episode’ or an ‘interactive TV guide’) and emerging features – using voice control instead of the remote. While they may have adopted these technologies later than younger groups,²⁶ this indicates that internet-delivered TV can have a transformative impact for older viewers once they gain access and familiarity.

2.2 Audiences who haven’t yet adopted internet-delivered TV stand to gain significantly

Our survey also asked viewers who don’t currently use internet-delivered TV what features they would be most interested in using (**Figure 5**). As expected, non-users rated internet-delivered TV features lower on the same 5-point scale than current users – reflecting the general challenge that consumers face in valuing benefits they have not yet experienced. Despite this, these viewers strongly valued IPTV innovations that would enhance their core TV experience, with the most valued features including pause and rewind, live restart, and an interactive TV guide. This suggests that non-users would most like internet-delivered TV to be familiar while enhancing the viewing experience by providing greater flexibility and control.

Figure 5: Perceived usefulness of different internet TV features, non-connected TV users, by age group



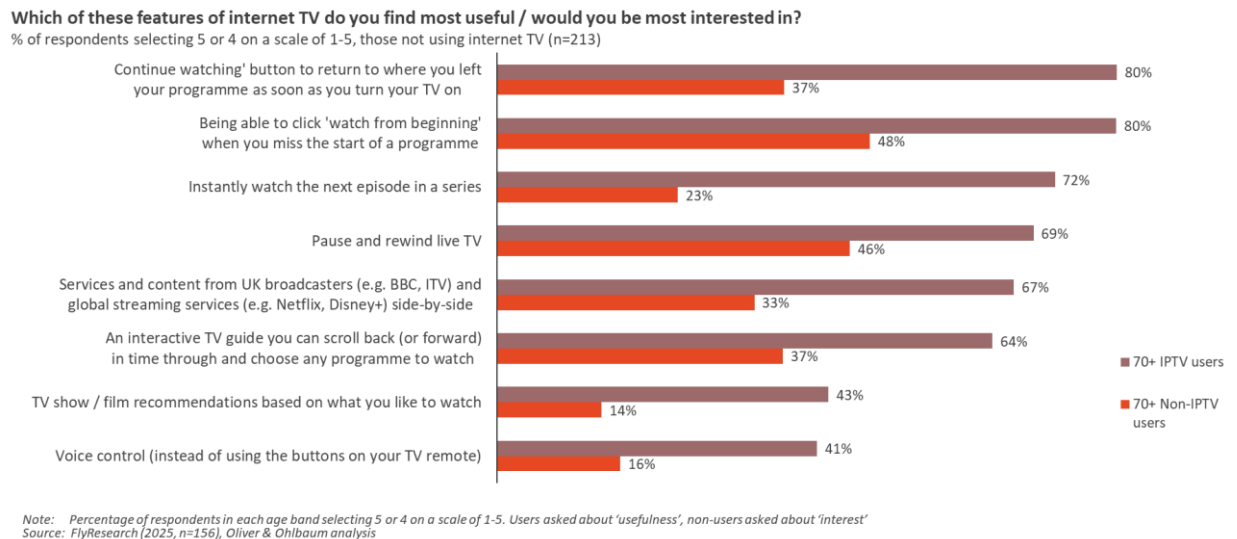
Non-users are much more likely to be older than current connected TV users (only 25 per cent are aged 18-54 compared to 69 per cent of current users) yet, as we have seen (**Figure 4**), older users derive the highest value from internet-delivered TV features when they have them.²⁷ This perceived value gap between older users and older non-users suggests that the latter stand to benefit considerably from adopting internet-delivered TV. One potential barrier to uptake appears to be that many non-users find it hard to imagine using and liking internet-delivered TV

²⁶ Ofcom CMR 2024 data show penetration of internet TV technologies among the older generation has significantly lagged behind younger generations

²⁷ FlyResearch (2025, n=1,000)

before they've tried it (**Figure 6**). We also found some misconceptions about what internet-delivered TV is – in our workshops many participants did not realise that it can include access to live TV channels.

Figure 6: Perceived value of different internet TV features, connected TV users vs non-users, aged 70+



2.3 Emerging features are already transformative for some users

While some emerging features have yet to impact all connected TV users, many are already having a profound impact on specific groups. Digital accessibility experts, AbilityNet, have emphasised how the latest generation of voice control has been transformative for some older and disabled viewers who struggle with traditional TV interfaces: "Sky's latest remote control has 'Voice Control' which enables someone to speak into the remote control and tell the TV to change channels and perform other tasks ... this is progressive and something for other companies to aspire to."²⁸

These developments are part of a broader shift toward greater accessibility on TV platforms and services. For example, Freeview Play includes an accessible programme guide co-designed with users and advocacy groups, while Freely offers enhanced options such as dedicated subtitling, audio description, and signing. Sky provides accessible remote functions via its smartphone apps; Sky Go's virtual remote, for instance, can support whichever assistive technology a user wishes to use, whether that is a screen reader, magnification, increased font size or voice control. Sky designs 'with inclusion in mind, working closely with specialists, consultants, and most importantly people with lived experience of disability to ensure our technology works for everyone'. SVOD services like Netflix and Amazon Prime Video now support downloadable audio descriptions – functionality that didn't exist just a few years ago. The Media Act 2024 is being implemented by Ofcom and extends statutory requirements for linear broadcasters to provide subtitling, audio description and signing to mainstream on-demand services, further securing the availability of accessibility tools.

In the next part, we explore how internet-delivered TV features will evolve further and what new innovations are on the horizon.

²⁸ Claudia Cahalene, *How TV is becoming more accessible for people who are visually impaired*, AbilityNet, 11 February 2022 <https://abilitynet.org.uk/news-blogs/how-tv-becoming-more-accessible-people-who-are-visually-impaired>

The next wave of innovation:
where is TV going next?

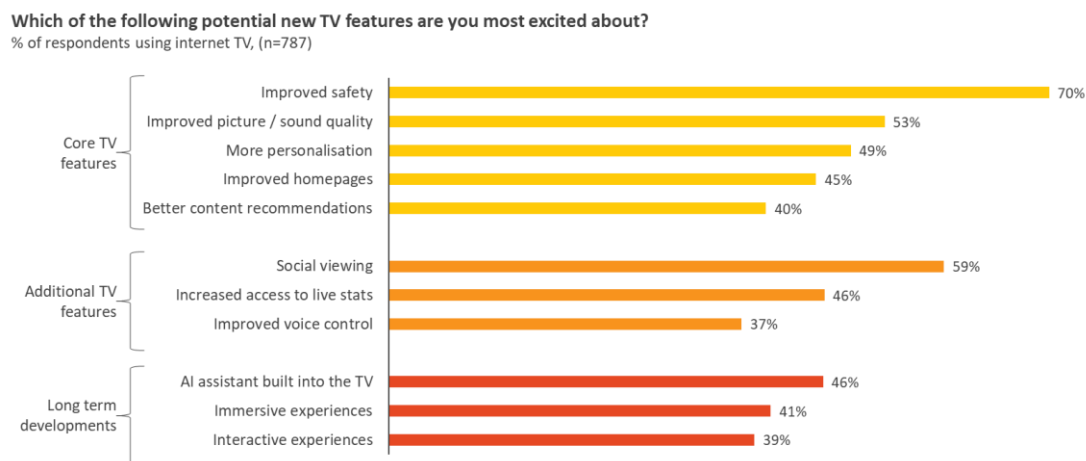
3 The next wave of innovation: where is TV going next?

This section explores anticipated innovations in the TV viewing experience over the coming years. Drawing on key insights from our consumer survey and workshops, it highlights the specific features that make internet-delivered TV compelling for audiences today, the aspects that viewers are most excited about for the future, and the longer-term developments likely to reshape how we engage with television over the next decade. Consumers can find it difficult to predict their preferences, behaviours or needs in relation to unfamiliar products, if asked to look too far into the future. We used the survey to test views on nearer term developments, the workshops to provide more context and draw out nuances in consumer views, and the expert interviews to look further ahead.

3.1 Audiences are most excited about enhancements to the core TV experience

Our workshops and survey results show that the innovations that excite consumers the most are those that further enhance the core TV experience and what makes it different from other entertainment or social media – the opportunity to lean back and relax, high quality picture and sound (the ‘big screen’ experience), communal viewing, and a safe and trusted environment. Consumers would also welcome innovations that make the current experience smoother and easier: subscription bundling; a single, aggregated UI; more personalisation. **Figure 7** shows the results in detail.

Figure 7: Excitement around potential new TV features, connected TV users



Note: Those currently using internet-delivered TV. Percentage of respondents in each age band selecting 5 or 4 on a scale of 1-5
Source: FlyResearch (2025, n=787), Oliver & Ohlbaum analysis

Existing features will naturally improve as technology develops. While some of the features we tested may be working flawlessly in top-of-the-line products, for others this will come with time as consumers refresh their devices and software and as product ranges evolve.

The best way to watch audiovisual content is on as big screen as possible. That naturally plays to the advantage of TV

Ian Whittaker, Analyst

3.1.1 Better interfaces and content discovery tools are in high demand

One of the most consistent concerns raised in our consumer workshops was the growing complexity of the TV experience. Consumers who have to manage multiple subscriptions, go in and out of multiple apps repeatedly to access content, and navigate inconsistent UIs struggle to find desired content quickly. While greater choice has been a major success of internet-delivered TV, too much choice can become overwhelming.

This challenge was highlighted at the 2023 Royal Television Society Cambridge Convention, themed *Too Much to Watch* where Channel 4 presented research showing that ‘consumers feel anxious about video overload’.²⁹ It was also addressed by Dana Strong, Sky Group CEO, in March 2025, when she announced Sky’s new purpose: *“Back in the ‘90s when Sky was founded, we were aiming to solve a choice problem. There were only four TV channels in the UK, and the emergence of satellite TV with unbeatable sport, entertainment, and news, pioneered by Sky gave people access to so much more choice. Today, the challenge has shifted, and consumers are searching for better experiences. People want... content they can easily find... Our new purpose – to bring you the joy of a better experience – captures the role we want to play in people’s lives”*.

To ensure TV remains easy to use and enjoyable, innovations are simplifying how content and services are accessed – organising them in intuitive, accessible ways. Our survey results found strong enthusiasm for features that streamline usage:

- **Personalisation**, especially in multi-viewer households. There was appetite for more relevant recommendations
- **Improved homepages** also scored highly, with only 20 per cent saying they were not excited about enhancements in this area

Workshop participants also raised the need for better subscription management. Many supported the idea of bundling services, something products like Sky Stream and Amazon Fire already offer. Some proposed flexible “micro-subscriptions” for specific content; while the economics may limit that model’s viability, better integration of SVOD services will be welcomed. Finally, a single, consistent and easy to navigate user interface supports accessibility, as highlighted in our interview with Robin Christopherson from AbilityNet (Section 3.2).

When you're dipping in and out [of monthly subscriptions], it's a real pain because you've got to have an account with each one

Workshop participant

Watching the telly should feel easy and it should feel simple. That's what Sky OS is here to do

Fraser Stirling, Sky and Comcast Global Chief Product Officer

We're not getting linear progress. What we're getting is a circle coming back. People are saying we've got too many apps to manage so what we want is a screen where it's easy to choose

Ian Whittaker, Analyst

3.1.2 Consumers value how TV can provide a safe viewing environment

70 per cent of survey respondents were most interested in safety features, which refers to tools available on connected TV like parental controls, PIN protection and family settings. In the workshops, participants were aware of the importance of online safety and concerned about protecting children from seeing harmful content as they

²⁹ <https://www.channel4.com/press/news/rts-cambridge-convention-2023-speech-alex-mahon-chief-executive-channel-4-too-much-watch>

might do online. The safety features available on connected TVs are therefore appreciated to empower consumers. For example, Sky offers a Kids Safe Mode on its TV products and offers further protection through its Broadband Shield. Media literacy will also continue to be important.

Some workshop participants were also conscious of data protection and privacy online, and how that might relate to connected TV. Alongside data protection legislation and privacy policies, different TV platforms and broadcasters offer consumer tools to manage data preferences on connected TV. It is important that these are easy to use, so that the TV experience remains clear and simple. There is also ongoing innovation, for example the BBC's R&D team is trialling Personal Data Stores ('Data Pods') that allow viewers to control how and when their data is shared.³⁰

I'm worried about the two-way nature of it all. There's a big trust issue. At least with terrestrial TV you know where you stand, they're just broadcasting to you. I'm worried about somebody profiling me, putting together all the information from my different accounts, different channels and then selling on that information as a package...

Workshop participant

The question I would have is where the AI sits. If it's within your TV set that's fine because that feels like I have more control, but I'd really need to trust the broadcaster or streamer if they were the ones using it

Workshop participant

3.1.3 Viewers are enthusiastic about continuing improvements in picture and sound quality

Picture and sound quality remain central to the TV experience, with 55 per cent of viewers rating improvements in these areas at least 4 out of 5 in terms of how exciting they are. While screen resolution has steadily advanced, slimmer TV designs initially sacrificed built-in speaker performance. Innovations like Ultra High Definition (UHD), Dolby Atmos, and DTS:X are set to make viewing more immersive. Products like Sky Glass, with 4K HDR resolution and an integrated seven-speaker system, and mini-LED TVs, are already delivering enhanced audiovisual performance for early adopters.

For nature things like David Attenborough, it would be great. You could see it in higher quality, and you could hear all the details... leopards padding about in the snow – I can imagine that. That would be good

Workshop participant

When you go to the cinema, the sound is that much more immersive. It's not just there in front of you; it comes at you from all directions. It would be great if it was like that

Workshop participant

3.2 Innovations around the core proposition are gaining momentum

New innovations take time to reach mass adoption. As awareness grows, devices are upgraded, costs fall, and niche features become more accessible. Voice control, once a novelty, is now standard in most smart TVs, with usage expected to grow as interfaces improve. Other features, like social viewing and live stats, also show promise but remain outside the mainstream – for now. We explore these further below.

³⁰ <https://www.bbc.co.uk/rd/blog/2022-10-social-tv-and-personal-data>

3.2.1 Social viewing can help restore a shared sense of community

TV has long stood apart in its ability to unite people, whether gathered on the sofa at home or tuning in nationally for major ‘water cooler’ moments; often sports or events of national importance like general elections. New social viewing features have the potential to take this further, enabling viewers to see and hear friends or family in other households watching the same programme, displayed in a corner of the screen. This feature was highly rated in both our survey and workshops and, alongside safety, resonated strongly with viewers aged 70+ (**Figure 7**). Workshop participants spoke of a desire to recapture the joy of shared viewing experiences – something that has become less common with today’s personal devices and range of entertainment options.

Social viewing gained traction during the Covid-19 lockdowns, and BBC *Together+* and BT *Watch Together* launched in 2020. By 2022, the BBC reported that 52 per cent of UK 16–24-year-olds participated in online group viewings, mostly via laptops and phones³¹. The popularity of interactive gaming provides further evidence of the appetite for shared experiences. Ofcom research finds that just over half of adults who play video games on consoles do so online with someone else – and this rises to two thirds of people aged 16 to 24.³² With further products like Sky Live and Sky Watch Together launching, these experiences are poised to move to the TV screen and reach new audiences. Live sport, traditionally enjoyed together, is a key use case.

Back in the day when we all used to watch everything together at the same time you would talk about what was on TV at work. I kind of miss that

Workshop participant

I like the social viewing because I'm on WhatsApp calls with my sisters when watching TV a lot; I already do that

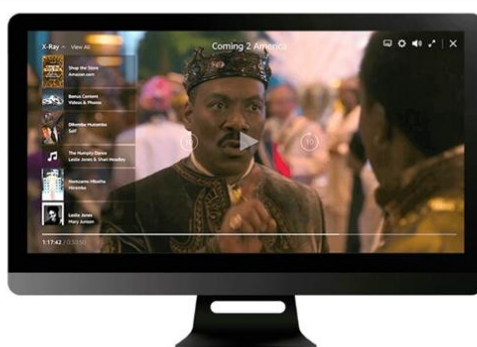
Workshop participant

3.2.2 Real-time stats and metadata can enhance engagement

Audiences are increasingly interested in greater access to real-time information while watching TV, particularly during live events. In both our survey and workshops, consumers expressed enthusiasm for features that provide data on request, such as player stats during sports broadcasts or contextual information like actor names, music tracks or filming locations. Amazon Prime Video’s X-Ray feature (**Figure 8**) was frequently cited in our workshops.

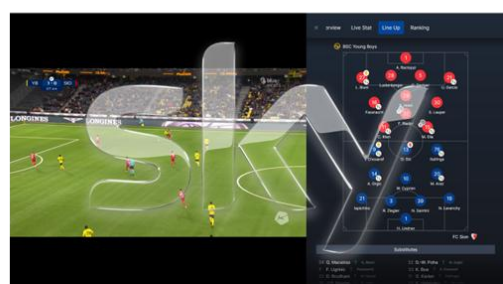
Figure 8: Examples of TV overlays

Amazon’s X-ray feature



Amazon Prime Video: X-ray feature showing credits overlaid on a TV show or film

Sky Sports functionality



Sky Sports: showing line up and formation information for a football match

³¹ Ofcom, News consumption in the UK, 2024

³² Ofcom Online Nation 2024

In our interview, Fraser Stirling, Global Chief Product Officer at Sky and Comcast, highlighted Sky's work in using sports data to enhance viewer engagement, both by enriching live broadcasts and enabling new forms of content.

At the recent golf Player's Championship we took all the data from the PGA, using a gaming engine, and in real time showed ball tracking on our app. Viewers could guess where the ball was going to land on the 17th green and there was a leaderboard tracking who was doing the best

For Sky Live we developed a skeletal tracking system that tracks 32 points on your body. We can apply that to normal video and for instance track 32 points on every player's body in a football match, plus the ball and referee. You can stick that data into Unity and recreate any angle you like. We can show you replays that no camera could ever capture... You can create your own highlights of the game and share them on social media

Fraser Stirling, Sky and Comcast Global Chief Product Officer

3.2.3 Cloud gaming is set to become a bigger part of the TV experience

In the workshops we touched on the potential for TVs to become the place for broader entertainment experiences such as gaming, with participants expressing interest in reducing the number of devices, provided choice and functionality remained. In our interview, Fraser Stirling noted that for many younger audiences the line between gaming and TV is becoming increasingly blurred, with formats such as livestreaming extremely popular on platforms such as YouTube and Twitch (viewers watch their favourite streamers watch content or play video games). For these audiences, it makes sense to be able to move seamlessly between video games, short-form, and long-form entertainment.

like the idea of having your TV be a games console and smart speaker all in one

Workshop participant

Why wouldn't we have the Manchester derby and then underneath the option to play the video game version?

Fraser Stirling, Sky and Comcast Global Chief Product Officer

3.3 And the TV set's role in the home is expanding

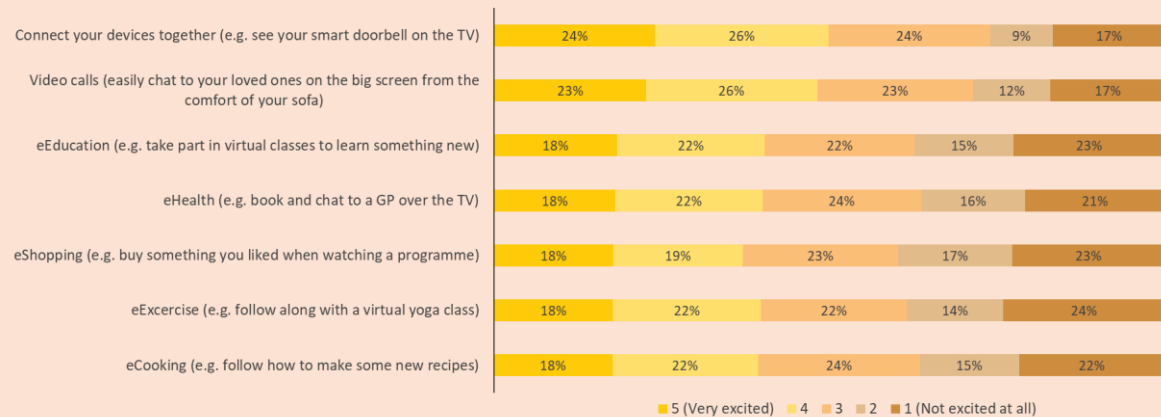
The TV set typically takes a prominent position in the living room, or other areas where people relax and come together. Whilst viewing via other devices (e.g. smartphones) has grown, the TV set still accounts for 84 per cent of total video viewing.³³ There's a great opportunity for the connected TVs of the future to offer so much more. In this section we have set out some ideas of what 'more' might be, drawing on findings from our research – set out in the box below.

FINDINGS FROM OUR SURVEY: NEW FEATURES EXCITING VIEWERS

Figures 9 and 10 set out the results from our survey where we asked consumers to provide their views on whether potential new uses for TV sets are a source of excitement. Figure 9 provides an overall view, with the yellow segments denoting the percentage of respondents who were excited about a particular feature. Figure 10 takes the same questions, breaking down the response by age group.

Figure 9: Consumer excitement around potential new uses for TV sets, connected TV users

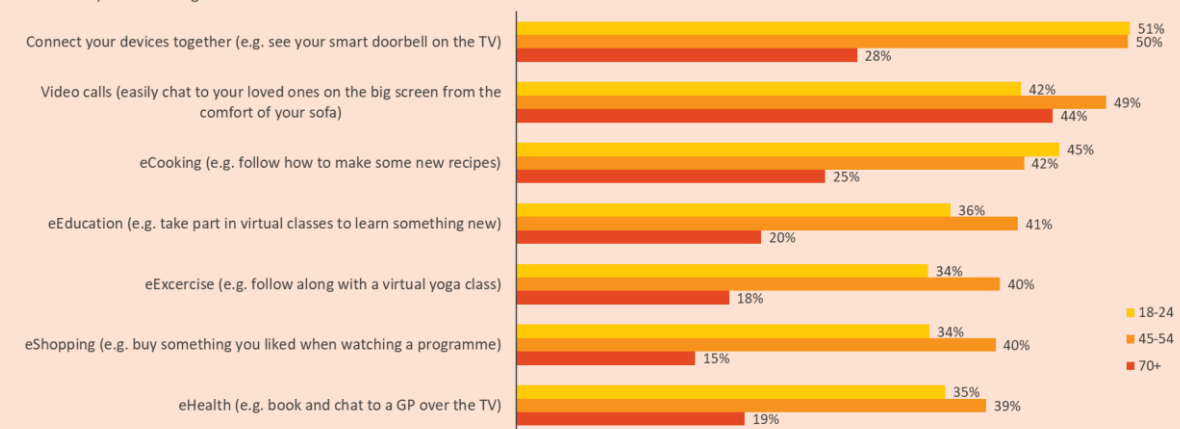
Which of the following potential new uses for your TV are you most excited about?
Share of respondents using internet TV services



Note: Those currently using internet-delivered TV
Source: FlyResearch (2025, n=787), Oliver & Ohlbaum analysis

Figure 10: Consumer excitement around potential new uses for TVs, connected TV users, by age group

Which of the following potential new uses for your TV are you most excited about?
Share of respondents using internet TV services



Note: Those currently using internet-delivered TV. Percentage of respondents in each age band selecting 5 or 4 on a scale of 1-5. Range of demographics shown rather than all respondents
Source: FlyResearch (2025, n=787), Oliver & Ohlbaum analysis

³³ Thinkbox, *Beyond the TV set: device viewing*, 2025

3.3.1 TV-based video calling is likely to become more common

While video calling has existed for many years, it became widespread during the Covid-19 pandemic, when social restrictions led to increased use for both work and personal communication. Participants in our workshops confirmed using various platforms – Zoom, Teams, Skype, WhatsApp, FaceTime, Houseparty and more – often on personal devices like mobiles, tablets or laptops. Though the living room TV seemed the natural place for these interactions, set-up complexity and lack of built-in cameras limited adoption.

Since then, mobile and tablet use for video calling has remained dominant, but recent developments suggest TVs may soon catch up:

- Early attempts included **Skype** on smart TVs, **Logitech Revue** with Google TV, and **Microsoft Kinect** for Xbox
- Today, **Apple's Continuity Camera** (2023) lets users turn an iPhone or iPad into a webcam for FaceTime on Apple TV; **Sky Live** (2023) adds a camera to Sky Glass TVs for video calls, social viewing, games and fitness apps

In parallel, smart displays like Amazon Echo Show and Google Nest Hub are normalising video calling in the home, making TV integration a logical next step. Our survey results support this shift: 49 per cent of respondents expressed excitement about video calling on a TV (Figure 9), with enthusiasm across all age groups. 40 per cent were interested in eHealth, including the idea of seeing a GP via their TV. Meanwhile, workshop participants highlighted the advantages of large screens for comfort, and ease – especially for group calls and for older or disabled users who may struggle to use smaller devices. As TV sets increasingly connect to cameras and user interfaces become more intuitive, video calling via TV could soon become a mainstream, frictionless experience.

We probably don't do it as much now, but during Covid we used to do it a lot... but obviously through the iPad or a phone. A big screen just makes it easier and means we could all do it at the same time

Workshop participant

3.3.2 Some users are excited about TVs becoming 'productivity hubs'

Our survey and workshop findings show growing consumer interest in new TV use cases beyond traditional viewing, with some users excited about their TVs evolving into multifunctional 'productivity hubs' – replacing the need for other devices and enabling activities like learning and exercise.

The most popular new use case in our consumer survey was device connectivity, with 50 per cent of respondents excited about features such as viewing a smart doorbell feed on their TV. Other connected uses include acting as a smart home dashboard or automatically casting content from smartphones. This functionality is likely to become increasingly valuable as smart home adoption grows. Camera-enabled TVs may also unlock gesture controls, offering more intuitive interaction across multiple devices.

A recent survey found that ownership of smart devices is becoming increasingly commonplace; while 92 per cent of UK individuals now own a smartphone, 38 per cent own smart speakers, 16 per cent smart home thermostats, and 14 per cent smart doorbells.³⁴ When we consider that each smart device has a different app to control it and a different voice assistant with different specific commands, it is easy to understand the desire to connect devices to a single hub from which to control them all. Smartphones will likely be this hub when away from home but TVs, which typically sit at the heart of the living room, are well-placed to become a hub when at home.

³⁴ DSIT, *Consumer Survey on App Stores, Internet of Things (IoT), and Connected Places, 2024*

There is increasing investment and innovation in this area. Amazon, Apple, Comcast, Google, Samsung and others have joined the Connectivity Standards Alliance to develop a single standard for communication between different smart home devices ('Matter'), simplifying smart home ecosystems. Google announced at CES 2024 that LG TVs and selected Google TV and Android TV OS devices will act as hubs for Google Home. Samsung will leverage SmartThings, its smart home hub software that has built-in Matter connectivity, with its own TV Quick Panel.³⁵ Meanwhile, Apple's expected smart TV launch would allow the TV set to become the central hub for the home and a gateway to its ecosystem of connected devices and services, from Apple TV+ to the HomePod to Apple Fitness+.³⁶ Further software and hardware advances plus availability across lower-end product ranges may see this trend appear in more homes.

Lifestyle Features

In our survey, around 60 per cent expressed interest in at least one lifestyle and productivity feature such as:

- Virtual exercise classes
- Shoppable TV experiences
- Online learning
- Interactive cooking guides

Interest in such features also came out of our workshops, such as online learning, fitness and cooking:

I'm quite a visual learner, so that would be good for me. I don't agree with children watching lots and lots of TV, but it would be good to have a different option, a different way for them to learn things

Workshop participants

Exercise classes are already on Netflix. I've used it and loved it. It's a really good idea for people that don't have confidence to go to the gym

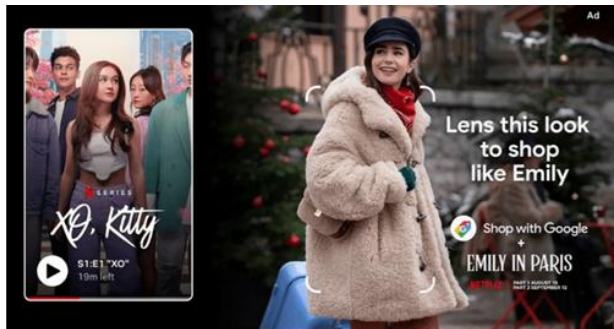
Having stuff on your phone is lovely, but sometimes just the sheer tiny size of it is annoying. If you've got a recipe on the screen and you've got gooey hands, you really don't want to be picking up your phone to get a closer look

These features are beginning to appear. For example, VOD and FAST services, channels, brands and ecommerce platforms are partnering to develop shoppable TV or 'V-Commerce' (Video-Commerce) – the convergence of TV and online shopping. While many people use their smartphones to look for products, the TV set arguably makes this seamless. By scanning the screen, clicking on interactive ads or using the remote, viewers can buy products seen on screen. This also provides an additional revenues stream for the audiovisual sector, which can be reinvested in content and services. In a Netflix and Google Lens tie-up for *Emily in Paris* series 4 (**Figure 11**, below), viewers to the Netflix ad-supported tier were able to use Google Lens on their smartphone to scan Emily's outfits and find similar items for purchase on the web through an image search. In the US, NBCU offers a 'Must Shop TV' capability on selected unscripted programmes on its VOD service, Peacock, such as *Below Deck Mediterranean*, *Top Chef*, and *Love Island USA*. This uses AI-powered technology, allowing users to scan QR codes or prompts in programmes and browse and purchase similar products online.³⁷

³⁵Cord Cutter News, *Google TV Exec Says Televisions Could Become the Central Hub of the Home*, 19 February 2024

³⁶Broadcast, *Will Apple Smart TVs redefine home entertainment?*, 13 December 2024

³⁷MIPBlog, *Shop While You Watch: The Rise of Shoppable TV*, 23 January 2025

Figure 11: Examples of shoppable overlays, Netflix and NBCU

Netflix and Shop with Google, from MIPBlog, Shop While You Watch: The Rise of Shoppable TV, 23 January 2025



NBCU Must Shop TV allowing people to buy kitchen gadgets from a cooking show, from TechCrunch, Peacock officially launches 'Must ShopTV' to let users shop products that appear in content, 2 May 2025

Sky Live already supports motion-based fitness features and plans further functionality. An interactive camera that can be placed on top of a Sky Glass TV, it allows families to make video calls, watch shows together even when apart, play immersive hands-free games, and workout with a personal trainer. Interest in these developments is currently strongest among middle-aged viewers, likely reflecting family and household dynamics. However, this appears to be a life-stage effect rather than generational, suggesting strong long-term potential across demographics as connected features become more embedded in everyday TV use.

3.4 Longer term developments look set to be powered by AI

The adoption of major technological innovations typically follows a familiar trajectory, with early applications tending to mimic existing formats before more radical use cases are explored. For example, the initial use of the internet by publishers largely involved replicating print content online, serving the same function as newspapers and magazines via a new online medium. Few at the time foresaw the emergence of social media, which introduced entirely new content formats and radically transformed how people interact online.

Artificial Intelligence (AI) is widely seen as the most significant technological leap since the internet. As with earlier innovations, initial applications have primarily focused on imitation – for example, using AI to reduce the cost of video production, from script editing to VFX and 'text to animation' video generation. However, as AI models become more advanced, we anticipate the development of entirely new content formats and interaction models within the next decade. The key challenge lies in identifying which of these innovations are most likely to achieve widespread adoption.

When assessing which AI-driven features may enter the TV mainstream, it is essential to adopt a consumer-centric perspective. Do these features align with what consumers want? Will they meaningfully enhance the viewing experience? Are they affordable? History offers cautionary tales – in the 2010s, 3D TVs were promoted as the next breakthrough, but they failed to gain traction due to high costs, limited content and the inconvenience of wearing special glasses. In this section, we examine some AI-enabled innovations that could reshape how we engage with television over the coming decade.

Of course, internet-delivered TV is central to this evolution, as none of the following innovations would be possible through traditional distribution technologies such as DTT or satellite.

3.4.1 AI will transform how we discover and engage with TV content

AI is already embedded into many TVs to some degree. Features such as content recommendations, dynamic search and voice control have long used traditional AI and machine learning techniques. These earlier models, trained on narrow datasets, were effective for simple commands, such as “open ITVX”. As models have improved, they can now handle more complex queries like “find horror films”, which requires recognition of both content genre and format.

Looking ahead, we expect these systems to be replaced by the latest generation of AI: Large Language Models (LLMs). These systems can understand and generate natural, conversational language, allowing far more intuitive and flexible interactions. This view is echoed by the BBC’s Research and Development team, which published a feature in April 2025 exploring the evolution of the media sector. The article opened with the hypothesis: “All user interaction will be driven by artificial intelligence.”³⁸ In the near future, Fraser Stirling, Global Chief Product Officer at Sky and Comcast told us that viewers will be able to ask their TV loosely phrased queries such as “find me the film about the creator of the atomic bomb that won loads of Oscars last year,” and *Oppenheimer* will be accurately returned. The newly announced Alexa+, which Amazon says can understand you ‘whether you’re speaking in half-formed thoughts, using colloquial expressions, or exploring complex ideas’, is just one example of this future drawing ever closer.³⁹

In 10 years’, time everybody will be using voice ... You’ll still have a home page with all your top stuff, and it’ll be personalised and targeted, but a lot of functionality is going to be superseded by AI assistants

Fraser Stirling, Sky and Comcast Global Chief Product Officer

This type of extended query is better suited to voice than text input, so we expect voice commands to become the primary mode of interaction with TVs over the next ten to twenty years. Crucially, these transformations will not be limited to search and discovery. These tools could eventually evolve into a fully-fledged digital assistant, enhancing all aspects of the viewing experience. Examples include:

- Proactive recommendations, such as “You’ve watched several films with Eddie Redmayne recently. You’re very likely to enjoy *The Day of the Jackal* TV series, where he’s the lead actor.”
- Conversational engagement: discussing content with the viewer in real-time or responding to follow-up questions, such as telling the viewer who the lead actor is and what else they’ve appeared in
- Accessibility enhancements, particularly for disabled individuals, such as real-time captioning, language translation, making dialogue easier to hear or reducing the background noise in a scene

AI could analyse that in real time and give you the audio description, or it could listen to the dialogue and provide captions in whatever language you want. Captions aren’t always available, especially for live events. That’s doable today!

Robin Christopherson MBE, AbilityNet Head of Digital Inclusion

We also expect a major shift in TV user interfaces (UIs). Twenty years ago, desktop computing required rigid file structures to locate documents, whereas today, many users don’t format their files because they trust the search engine to find the documents they need. The same will happen to TV UIs, which are currently highly structured with neatly laid out tiles and genre categories. According to Shalini Govil-Pai, Vice President and General Manager of TV Platforms at Google, future TV interfaces will become much more streamlined, dynamic and context-aware – “The innovations we’re seeing across both hardware and software will transform your TV from a passive screen into an

³⁸ BBC Research and Development, *The 5Is (internet-only, intelligent, intermediated, interactive, immersive)*, 2025

³⁹ <https://www.aboutamazon.com/news/devices/new-alexa-generative-artificial-intelligence>

intelligent, interactive, unifying hub. Today's sets can enrich our lives and bring the family back together again in ways that can only be imagined. Delivering experiences beyond entertainment, it's an exciting transformation".⁴⁰

As an example to bring this to life, Sky or TNT could form partnerships so that a Premier League football match can be visually surrounded with relevant YouTube content creator videos, a link to play the same matchup within EA Sports FC, documentaries about the competing clubs or Spotify song playlists that have been 'liked' by the competing players.

3.4.2 Content itself will be transformed through personalised and immersive experiences

While using AI to enhance content discovery can be seen as an incremental improvement by refining experiences that already exist, the real transformation lies in how content itself will evolve. Innovations in this space are likely to be more radical, particularly in delivering hyper-personalised and immersive experiences.

If you look at the data from Ofcom, the two most watched categories of short form videos are 'how-to' programming and news. Both of those are essentially shredded TV. Other top categories are clips of comedy shows, dramas, sports, etc. These are all things where TV has the content. There's the opportunity to expand the range of content that TV offers and it can offer that content now in an online environment

Ian Whittaker, Analyst

Hyper personalisation

Advancements in AI and real-time visual rendering engines are paving the way for the recreation of real-world environments in highly realistic formats – and these technologies are already being developed by startups like Condense Reality⁴¹ and Imverse. Live sports fans will be able to select camera angles, engage with live stats, and interact directly with the game.⁴²

This unlocks substantial opportunities for hyper-personalised viewing. Partnerships between AI providers, rightsholders and producers could generate new experiences for audiences. Consider watching the *Darts World Championship* on Sky. Want to replace the players with avatars of your friends? Or visualise the competition starring the cast of *Fast & Furious*? Even whimsical options, like turning all the athletes into Minions to attract a younger audience, could be made available through AI-powered visual rendering. Such technologies will move beyond enhancing the experience to fundamentally reshaping it, moving from content consumption towards co-creation.

Immersive and interactive experiences

New technologies will also open the door to more immersive and more interactive experiences, such as viewing entertainment content via a virtual reality (VR) headset or participating in the video content, blurring the boundaries between video and gaming. Immersion and interaction will likely come together as technology develops, but immersion will entail experiences such as being able to take a virtual seat at *The Traitors* round table and interactive experiences may take the form of choose-your-own adventures like Netflix's *Bandersnatch*.

⁴⁰ VarietyPlus, *How TVs of the Future Will Once Again Become the Heart of the Home*, 2025

⁴¹ SportsPro, *Condense Reality and BT collaborating on 3D hologram technology*, 2020

⁴² Broadcast Now, *Why AI is good for sports production*, September 2024

While these features are not yet a priority for most viewers, as illustrated in **Figure 8**, 41 per cent of respondents from our survey ranked them as exciting and 6 per cent of UK adults already have a VR headset. Even in our small sample of workshop participants, we encountered strong enthusiasm for an immersive and interactive TV future, with two out of twelve attendees in Leeds already frequent VR users.⁴³

In our workshops, interest in immersive formats tended to cluster around premium live events, particularly sports and music festivals, where the appeal of a more engaging, participatory experience was clearest to people. Game and quiz shows were also frequently mentioned as well-suited to interactivity.

While such experiences are beginning to emerge (e.g. selected sporting events are available in VR with compatible hardware and subscriptions, and platforms like HQ Trivia have pioneered live interactive formats), they are not yet widely accessible. The key question is whether these immersive features will become mainstream or provide additional value to a narrower audience segment. The low take-up of devices such as Apple's Vision Pro may suggest the former, but price remains an issue. As devices become cheaper, less bulky, and run more smoothly it may be the case that we see a sudden uptake.

Could you imagine being able to... go along to Glastonbury virtually. You can pick the stage that you want to watch... You'd be sat there in your lounge with your wellies on

I think the interactive idea adds a different dimension to entertainment, the opportunity to get involved. Game shows, quizzes, Saturday night-type programmes

Immersive experiences, I picked that because I spent ages trying to get my son Oasis tickets and this would be the next best thing

[I like the idea of] Interactive game shows, like The Chase or Who Wants to be a Millionaire... "Ask the public".

The immersive experience sounded very good... Sporting events, I would think mainly, or concerts... the Proms, things like that. Especially a football match, you could pick your own team's end

Workshop participants

It's maybe just a bit early for VR. The potential experiences and applications are cool, but how do you facilitate them? Hardware and devices aren't quite there yet

Fraser Stirling, Sky and Comcast Global Chief Product Officer

You don't tend to get gradual change; you tend to get things lasting for a long time and then very radical shifts

Ian Whittaker, Analyst

⁴³ Ofcom, CMR 2024

When will we all be using
connected TV?

4 When will we all be using connected TV?

There is a transition towards more and more online viewing; in this part we explore when we can expect everyone to be using internet-delivered television. By that we mean all households having access to television over the internet, and the retirement of traditional distribution systems for broadcast TV.

4.1 Shifting viewing has led to Government considering options for the future of TV distribution

As we have seen in Figures 1 and 2, audiences and industry are transitioning towards TV delivered over the internet. While many have been watching linear channels over broadcast and VOD services over the internet (as shown in Figure 1 from Section 1.3.1) services such as BVOD and FAST channels and all-IP platforms like Freely, Sky Stream, Sky Glass and Virgin Stream, offer mainstream options for watching all TV – including live channels – over the internet. This shift is particularly evident in the declining use of Freeview and Freesat. In 2014, DTT and DTH services were used by 70 per cent and 40 per cent of households respectively, with average daily viewing to broadcast TV at 206 minutes per person. By 2023, these figures had fallen to 52 per cent and 31 per cent, with broadcast viewing down to 142 minutes per person.⁴⁴ In 2023, only 11 per cent of households were reliant on DTT as their sole access to TV on their primary set and this is forecast to fall to 7 per cent by 2030 (although, as we later discuss in **Section 4.5.1**, we believe the decline will be faster).⁴⁵ As this transition continues, UK broadcasters and platforms are maintaining multiple distribution routes, although sustaining all of these diverts resources away from investment in content and services.

4.2 TV is just one part of the wider digitalisation of the UK economy and society

In the 2025 DSIT Digital Inclusion Action Plan, government states ‘We want to use technology to grow the economy, reform our public services and make life better for every citizen’. Greater digitalisation provides opportunities for growth, efficiency and wellbeing across the UK. Both public and private sector services are moving towards digital services, including eGovernment, banking, travel bookings, education and culture. Often, those online have more choice and lower prices.⁴⁶ Therefore this government has identified the ‘need to act now to address the barriers to digital inclusion so that everyone can feel the benefits of technology in their everyday lives’.

The TV sector is just one manifestation of this shift. Nonetheless, it can play its part in the wider transition. TV drives demand for broadband and can help to narrow the digital divide.⁴⁷ The overall digital transition will require business, UK government and regulators to work together so that UK industry, including the TV sector, remains healthy and sustainable in an all IP-world, and so that the transition is inclusive.

⁴⁴ Platform penetration from Ofcom *CMR 2024*. Penetration for all DTT and DTH (including pay). Can sum to greater than 100 per cent due to households having access to multiple platforms. Viewing time from Thinkbox, includes live and playback, see Figure 2

⁴⁵ DCMS, *Future of TV Distribution*, 2024. DTT households with primary TVs not connected to the internet

⁴⁶ On average, consumers without access to the internet pay 25 per cent more across the series of transactions they enquire about, from home and car insurance to mobile contracts, train travel and food. The Centre for Social Justice, *Left Out - How to tackle digital exclusion and reduce the poverty premium*, 2023

⁴⁷ R. Katz, J. Jung, F. Callorda, *The role of Video on Demand in stimulating broadband adoption*, Telecommunications Policy, Volume 48, Issue 4

4.3 By the mid-2030s, broadband is expected to be available in technical terms for all households

Ofcom defines a 'decent' broadband connection as 10 Mbit/s download and 1 Mbit/s upload — sufficient for streaming video across multiple devices.⁴⁸ As of 2024, 58,000 or 0.2 per cent of UK premises (residential and small businesses) remain without access to such a connection via fixed-line or Fixed Wireless Access, a reduction from 61,000 in 2023.⁴⁹ These figures exclude Low Earth Orbit (LEO) satellite broadband, which has potential to fill in coverage gaps from a technical perspective, with take-up also related to competition increasing and prices coming down. In 2024, there were 87,000 satellite broadband connections across the UK (0.3 per cent of premises).⁵⁰

[LEO satellite broadband] will deliver 100mbit/s. You can then backfill over time with better fibre to all these places ... Starlink is launching more satellites, Kuiper is about to get going, so there will be more competition and more capacity... We don't yet have a Starlink ground station in the UK but once we approve those kinds of things that will also push the capacity up

Dr William Webb, Telecoms expert

In its 2024 review, the National Infrastructure Commission found that the UK is on track to meet its target of nationwide gigabit-broadband coverage by 2030.⁵¹ Nationwide coverage means at least 99 per cent of premises. The <1 per cent of premises without gigabit-broadband would have broadband available from a technical perspective through other technical means such as LEO satellite. With nationwide coverage every consumer will have the ability to access IP services at home.

Availability aside, could the internet cope with the increased demand for viewing in the mid-2030s?

If all television were delivered exclusively over the internet today, it's the view of some that challenges could arise during peak event viewing, such as when millions of households simultaneously watch live events like national sporting fixtures. This is primarily due to limitations in Content Delivery Network (CDN) capacity. CDNs are essential infrastructure: they consist of strategically distributed servers across the country that route user requests to nearby nodes, reducing pressure on core networks and enabling high levels of concurrent usage without causing bottlenecks or service degradation.

Although broadcasters and streaming platforms have been steadily investing in CDN infrastructure⁵², this has been a gradual process, partly because UK broadcasters continue to rely on traditional distribution platforms like DTT and satellite, which currently absorb the bulk of live event audiences.

⁴⁸ Ofcom, *Your right to request a decent broadband service*, 2023

⁴⁹ Ofcom, *Connected Nations 2024*

⁵⁰ Geostationary orbit (GSO) satellite or Low Earth orbit (LEO) satellite. The latter, which includes services like StarLink, are low latency and thus well suited to video streaming

⁵¹ National Infrastructure Commission, *Infrastructure Progress Review 2024*. Nationwide coverage means at least 99 per cent of premises. The <1 per cent of premises without gigabit-broadband will have broadband available through other means such as LEO satellite

⁵² DCMS, *Future of TV Distribution*, 2024

However, some experts argue that the risks are often overstated. Dr William Webb, a leading telecoms expert, points to the Covid-19 pandemic as evidence – during lockdowns, internet-delivered TV saw usage spikes well ahead of the expected adoption curve, yet for most users, service quality remained robust and uninterrupted.

If all TV was delivered over the internet today, it wouldn't really impact the fixed networks very much. It would be like a rerun of what happened during Covid. Everyone went home, started doing a lot more stuff on the fixed networks and there was a big traffic spike, but the networks were all fine.

Dr William Webb, Telecoms expert

Dr William Webb was also confident that any remaining issues will be ironed out by the mid-2030s as broadcasters and streamers continue to invest in CDN deployment. The DCMS *Future of TV Distribution* report similarly concluded that peak traffic will not be an issue – although based on the assumption that all TV viewing would be over IP by 2040.⁵³ If we instead assume that the report's 2040 peak viewing levels are reached five years earlier in 2035 then this suggests an annual peak IPTV traffic growth rate of 19 per cent instead of 13 per cent. As indicated in the *Future of TV Distribution* report section *Load on the core network*, this should be manageable for the industry given there are many ways to further expand network capacity, and network operators plan and install capacity to ensure traffic does not exceed thresholds.

While we might expect broadband requirements to increase as more users in households stream simultaneously in higher definition, or have more in-home devices connected to the internet, technological developments are expected to mitigate the effects as broadband capacity continues to be increased (and at falling cost), data compression technologies continue to improve, and more efficient ways to deliver content over the internet continue to be developed and adopted. Following a 'glide-path' of continued network improvement will be sufficient to arrive at this future. In our interview, Dr Webb considered that broadband requirements for TV streaming are unlikely to change significantly as a result.⁵⁴

4.4 A switch-over needs to be inclusive

Despite the clear audience trend and the technical possibility of switchover, any process needs to ensure that it supports households who rely on other means of distribution and may find it difficult, for a range of reasons, to transition. This could be because they can't afford internet-delivered TV, lack the digital skills needed, or simply prefer their current set-up.

⁵³ DCMS, *Future of TV Distribution*, 2024

⁵⁴ Dr William Webb interview for this report

In our consumer workshops, most participants felt that an IPTV future was inevitable. Young 'IPTV enthusiasts' believed a switch-over would have very little impact on their lives. Other groups (including older and C2DE viewers) felt there would be an impact of some kind but, provided the necessary internet infrastructure was in place, their main concerns were for wider society in the role of 'concerned citizens' – i.e. they were concerned on behalf of others rather than for themselves.

I think it's fair enough. Ten years is a long time. Ten years ago, I was learning to do maths, now I'm an engineer

Young ABC1 workshop participant

[I'll be fine but] I'm concerned about the most vulnerable and lonely members of society who would probably be excluded

Older BC1C2D workshop participant

My dad has been a manual worker all his life. He's never used a computer; he doesn't have the internet. He's amazed at all the different channels that he can get with his Freeview box. When I'm thinking about this from my point of view, I think it's amazing because I love technology, I love keeping up. But my dad, he'd be knackered

Middle aged C2DE workshop participant

Therefore, it is important to assess the likely size of the group that may still be unconnected in the mid-2030s, and whether simple and cost-effective TV options are available.

4.4.1 We have considered how many households may have unconnected TVs in 2035

Our survey found that 88 per cent of the TV viewing population already use internet-delivered TV services and this correlates with the DCMS finding that 86 per cent of TV households had access to internet-delivered TV on their primary set in 2023. However, that still leaves 3.9 million households currently without access to internet-delivered TV.⁵⁵ DCMS' commissioned report on the *Future of TV Distribution* suggests that these unconnected viewers are more likely to be older, have lower incomes, and have a disability – and that the main barriers to this group taking up internet TV are affordability and digital skills.⁵⁶

People like my Gran. She's got a tiny TV, but she watches it a lot. We bought her an iPhone, but she refuses to have a contract, so I have to top it up every few weeks. I think there are a lot of people like her who are stubborn in their ways. They might not be around in 10 years' time, but they might be, and we need to make sure that the transition is smooth for them

Young ABC1 workshop participant

In the *Future of TV Distribution* report commissioned by DCMS, MTM/ 3 Reasons forecast the evolution of TV viewing, by user interface, with unconnected TV households forecast to fall from 3.9 million in 2023 to 1.8 million in 2035 and 1.5 million in 2040.⁵⁷ As shown in **Figure 12**, this unconnected group may be broken down into broadband not-spots (i.e. households without access to the internet, only 13,000 in 2023), broadband households who have not yet connected their TVs, and broadband opt-outs who have broadband available but have not taken it up.

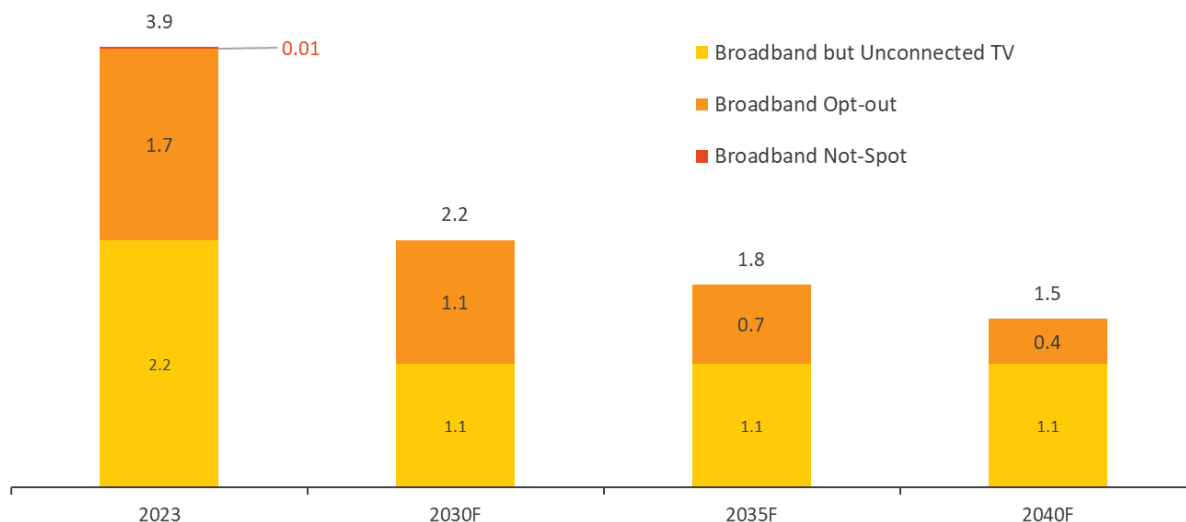
⁵⁵ In 2023. DCMS *Future of TV Distribution*, 2024

⁵⁶ DCMS, *Future of TV Distribution*, 2024

⁵⁷ Here, user interface essentially means the distribution type: OTT only, Linear IP, Hybrid, or Unconnected

Figure 12: DCMS unconnected TV forecasts, HHs, 2023-2040F**DCMS forecast: Households without connected TVs, 2023-2040F**

Millions



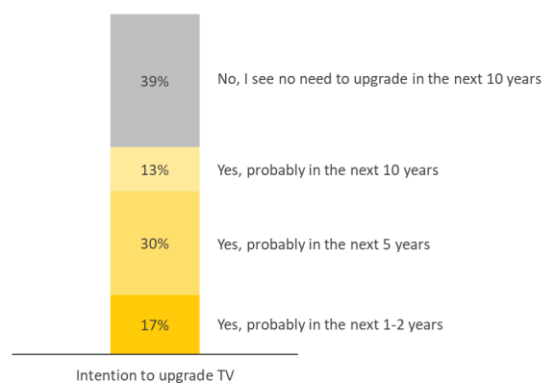
Source: DCMS, Oliver & Ohlbaum Associates

4.4.2 Our analysis builds on the DCMS forecasts, indicating that the number of unconnected households would be lower

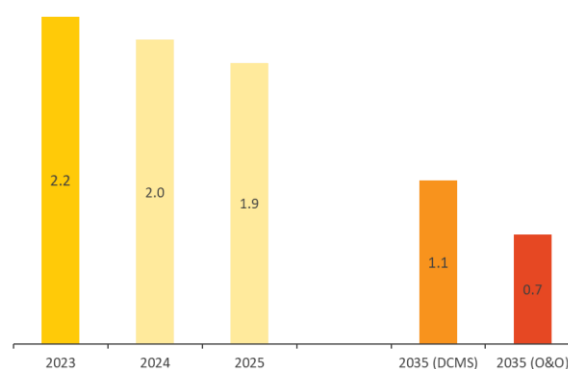
Exact details of the DCMS modelling are unavailable but the 1.1 million number in 2035 does include some TV households that have moved from the category of broadband opt-out and into the category of broadband but unconnected TV. However, the number of broadband opt-out households is likely to fall with demographic changes as well as changing consumer behaviour as technology continues to play an increasingly important role in people's lives, and we might expect a large share of remaining broadband opt-out households to connect their TVs upon connecting their homes to broadband.

Figure 13: Intention to connect primary TV to the internet among broadband users without connected TV

Are you likely to upgrade your main TV so that it connects to the internet? (Either with a new TV or a device that plugs into the TV)
% of respondents not using internet TV, (n=213)



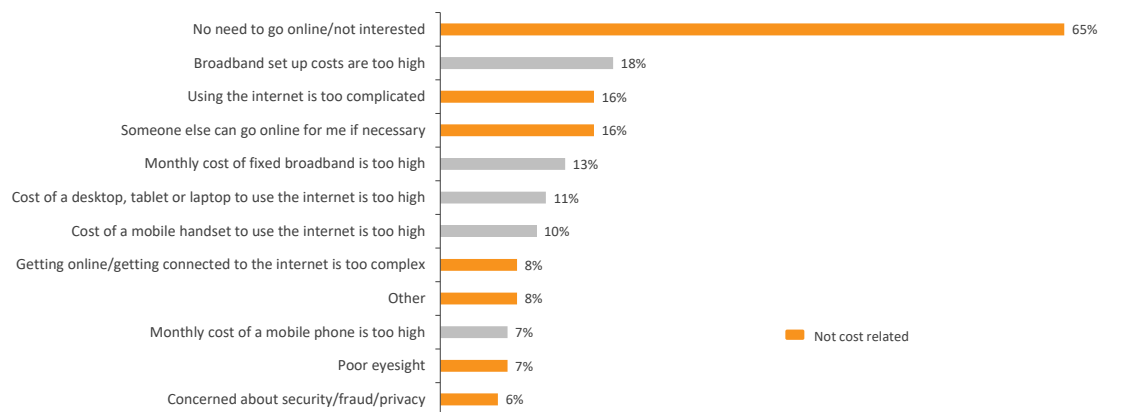
DCMS and O&O forecasts: BB but unconnected TV HHs, 2023-2040F*
Millions



Note: *DCMS only provide data points for 2023, 2030F and 2035F, 2024 and 2025 are estimated by assuming a linear trend between 2023 and 2030
Source: DCMS 'Future of TV Distribution' (2024), FlyResearch (2025, n=213), Oliver & Ohlbaum analysis

DCMS's forecasts don't consider the impact that announcing a switch-off date for DTT could have on consumer behaviour. We consider, based on previous experience of similar switchovers, that this would likely be significant. As seen in **Figure 14**, from the DCMS research, 'no need to go online / not interested' is cited by 65 per cent of those without broadband as a reason for not getting internet access within the next 12 months. It is by far the most important reason, with the next highest response option chosen by 18 per cent of respondents.

Figure 14: Stated reasons for not getting internet access at home in the next 12 months, 2023



Source: DCMS 'Future of TV Distribution' (2024), Oliver & Ohlbaum Associates

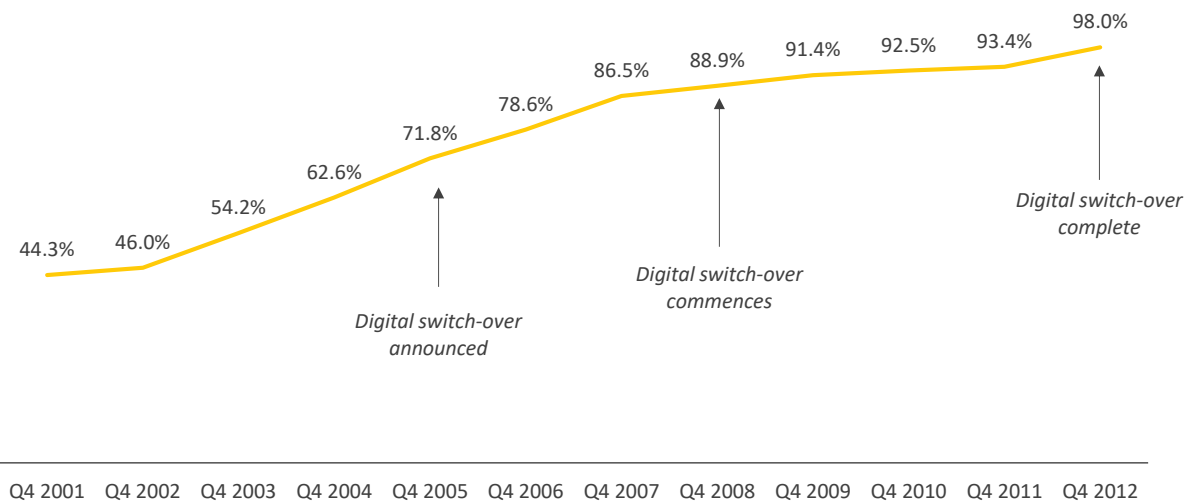
This has certainly been the case for previous examples, such as UK's 2012 analogue/digital switch-over, and Switzerland's 2019 DTT switch-over.

The technology part of it is actually very minor. Most people don't really care about it. What they're really concerned about is: do I get to watch my programme?

Ian Whittaker, Analyst

Figure 15 shows that following the completion of the UK's digital television switchover in October 2012, 98 per cent of households received digital television over any platform, with a large increase of nearly five percentage points in the final year as the deadline drew near. The remaining 2 per cent of households include those that do not watch television, watch television through a connected device such as a games console, and a small number of households with TVs incapable of receiving a digital signal.⁵⁸ The previous digital switchover was staggered by region over a number of years and in some cases viewers couldn't receive digital TV until the analogue signal was turned off due to significant spectrum clearance requirements. Government would not face such complex technology planning issues in relation to a transition to IP delivered TV for all (broadband roll-out and digital inclusion are broader and ongoing policy strands to support the UK's overall digital transition). Nonetheless, the digital switchover does demonstrate that audiences are both willing and able to transition to a new distribution method, and that, given a clear timeline, they will do so to maintain access to television services.

⁵⁸ Ofcom, *CMR 2013*. Note that sizing the exact number of digitally excluded TV households with this dataset is difficult due to changes in reporting, meaning that analogue terrestrial-only households stopped being recorded as TV households. However, BARB Establishment Survey data averaged across the period April 2011 to March 2012 has digital take-up among TV households at 97.0 per cent

Figure 15: Timeline of digital TV take-up, percentage of all HHs, 2001-2012

Source: Ofcom CMR 2013, Oliver & Ohlbaum analysis

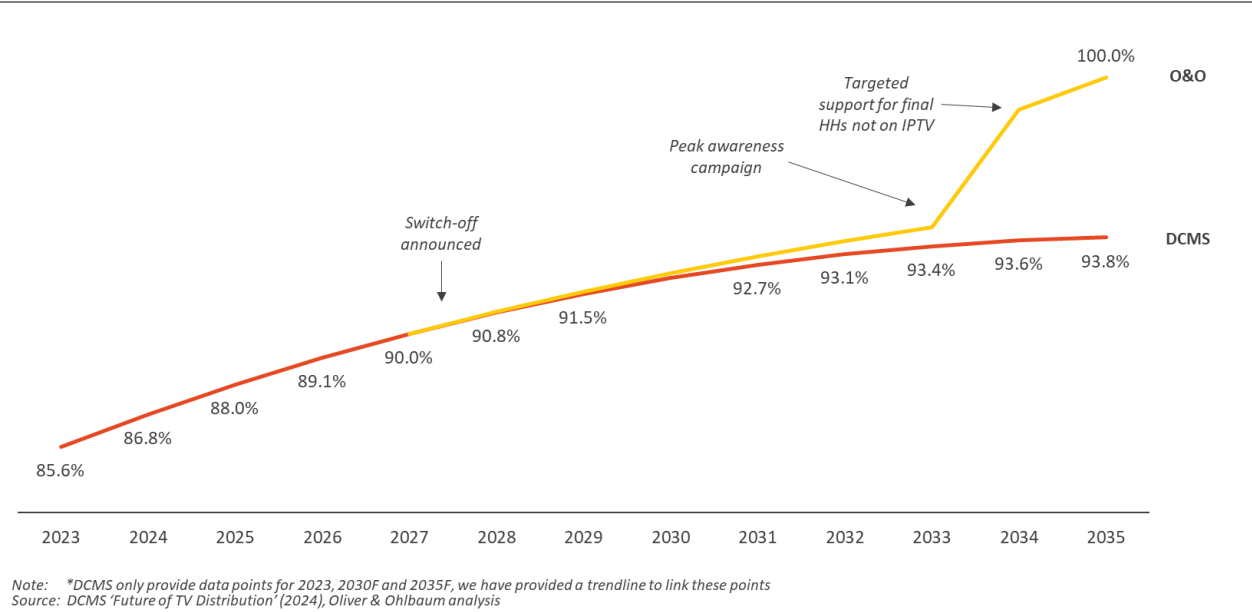
4.4.3 We have produced an updated illustration of the size of the 'at risk' group

Figure 16, below, shows how DCMS forecasts could change if a switch-off were to be announced; note that this is intended as an illustrative example only, not a piece of detailed modelling, and for the sake of simplicity assumes a coordinated switch-off of both DTT and DTH.

We would expect a switch-off announcement (in this illustrative example, at the end of 2027) to increase the rate at which households take up broadband and connect their TVs; we have assumed that this would only have a minor impact in the early years but begin to accelerate as the switch-off date approached as marginal decisions about refreshing old TVs get brought forward. In the year directly preceding the switch-off there would likely be a large step-change in the number of unconnected TV households – aided by public messaging. There would inevitably be some households that, for different reasons, did not switch in time but this would still be the case if a switch-off occurred in the 2040s instead of the 2030s.

In the simple model to generate the illustration below, we have assumed that rate of decline for unconnected households from 2026 to 2027 is maintained through to 2033 instead of tapering off. This is then followed by a 4.6 per cent step change (as seen in the UK in 2011/12) bringing share of connected TV households to 98.8 per cent in the year of switch-off (equivalent to c.333,000 unconnected households). Targeted support can then ensure these final households transition. This does not take account of the point made in **Figure 13** that we expect a higher number of people to take-up internet-delivered TV than in the DCMS forecast. Therefore, combining these two analyses would result in an even lower number of unconnected households.

Figure 16: Potential impact of announcing a switch-off on unconnected TV HHs



How should the UK navigate
the transition?

5 How should the UK navigate the transition?

To understand the future of TV viewing, we must also consider how the UK can achieve an inclusive internet TV landscape. This part sets out some considerations to help inform the work being carried out by government.

5.1 How a full 'IP TV switchover' could be inclusive

As discussed in the previous part, most consumers have already made the transition to internet-delivered TV and are enjoying increased discoverability, accessibility, personalisation and choice of content and services, with further advancements to come. Those yet to make the transition are missing out on these benefits and our survey shows that many would value an enhanced TV viewing experience, including older viewers. To support an inclusive transition for those who may still not be online in the mid-2030s, we have considered the likely complexities of TV compared to other online activities, and the 2012 analogue/ digital switch-off. This is, of course, only relevant for the estimated 330,000 TV households that are likely to remain without internet-delivered TV by the mid-2030s.

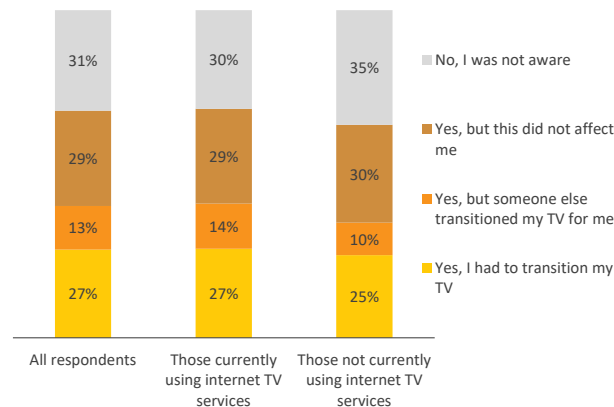
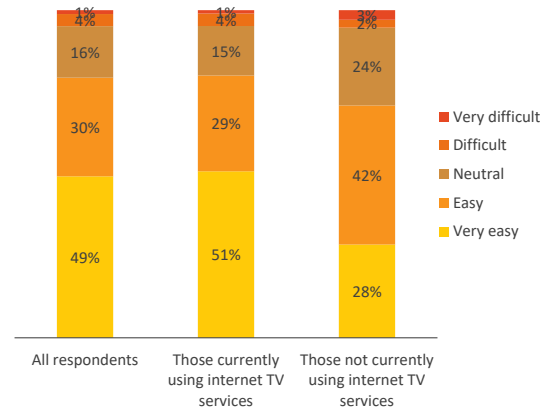
In contrast to the open Internet, Internet delivered TV services typically offer safe, closed environments (i.e. the service provider controls access to apps, services and/or content). Some internet delivered TV services introduce new interfaces, but many, such as Sky Glass and Freely, are designed for simplicity and familiarity. For example, pressing the 'Guide' button on the remote brings up a traditional programme guide, identical in function to those used in DTT or satellite services. All linear IP platforms currently offer similar, easy-to-use guides.

Figure 17: Freely and Sky Glass/Stream user interfaces



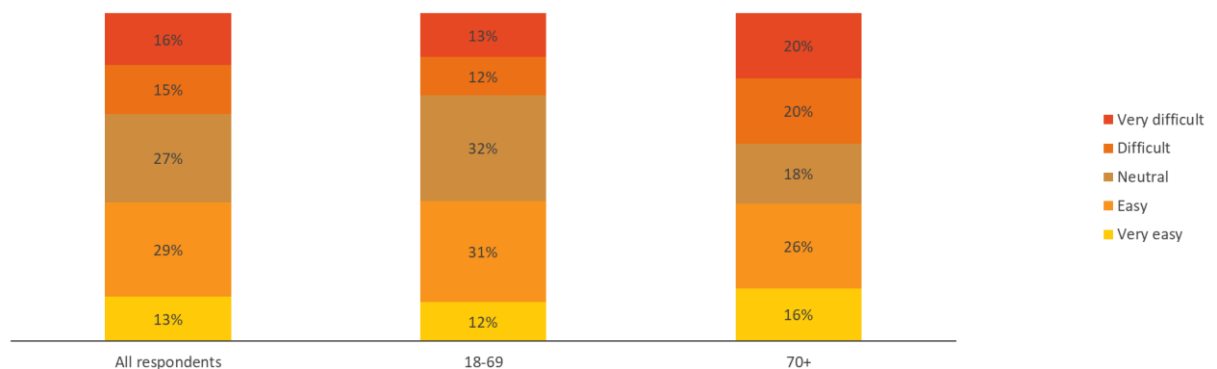
Lessons from the past further support this view. As shown below in **Figure 18**, in our survey we asked respondents about their experience with the UK's analogue-to-digital switchover, completed in 2012:

- **79 per cent of all respondents said they found it 'easy' or 'very easy'**, including 72 per cent for today's non-connected TV users
- **5 per cent of respondents said they found the previous switch-over 'difficult' or 'very difficult'**, and this was the same for today's connected TV users and non-users
- **13 per cent of all respondents reported receiving help** with the analogue/digital switch-over from friends, family, or neighbours, which we would expect to be replicated in any future transition. This community support was also confirmed in workshops, where many participants expressed willingness to help less digitally confident users

Figure 18: Awareness and experience of analogue/digital switch-over**Awareness of analogue TV switch-off**
Share of respondents**Ease of transitioning TVs from analogue to digital TV***
Share of respondents who transitioned their TVs themselves

Note: *Respondents asked to rate ease on a scale of 1-10. Here 1-2 is 'very difficult', 3-4 'difficult', 5-6 'neutral', 7-8 'easy', 9-10 'very easy'
Source: FlyResearch (2025, n=1000), Oliver & Ohlbaum analysis

Among those who have not yet made the switch to using internet-delivered TV, most survey respondents felt that switching would not present a significant challenge. As shown in **Figure 19**, 31 per cent of non-users felt it would be difficult to switch if their current signal (DTT or Satellite) were turned off, rising to 40 per cent among those aged 70+. Importantly, this group would not face the change alone – support could come from social networks, civil society or targeted government initiatives.

Figure 19: Expected ease of transitioning to connected TV among non-users if DTT/DTH ceased broadcasting**If traditional TV signals (satellite, aerial, cable) were turned off in the future, overall how difficult would it be for you to transition to watching TV over the internet? ***
Share of respondents not using internet TV services

Note: *Respondents asked to rate ease on a scale of 1-10. Here 1-2 is 'very difficult', 3-4 'difficult', 5-6 'neutral', 7-8 'easy', 9-10 'very easy'
Source: FlyResearch (2025, n=1000), Oliver & Ohlbaum analysis

Simple, accessible platforms like Freely or Sky Stream/Glass and compelling content could also help most viewers to make the switch without experiencing a disruption to their normal viewing patterns.

5.2 Despite this positive outlook, there will be some issues to overcome

Skills gaps and internet affordability are the primary challenges facing a small minority of the population who may remain unconnected by 2034 – government has noted how addressing these will deliver clear benefits for individuals, the UK economy, and society.

5.2.1 Skills gaps will be a problem for some members of society, but support exists

Certain groups, particularly some of the most vulnerable, are likely to continue to have challenges with digital skills and digital literacy, which has implications for everyday life, beyond the ability to access TV. A range of organisations already offer digital inclusion support, including The Good Things Foundation, Age UK, the National Digital Inclusion Network, Sky via its Sky Up digital hubs, Virgin Media's Connect More, AbilityNet, local authorities and the Department for Education. Joined up efforts across government and civil society will be important to tackling this issue effectively and efficiently. AbilityNet expressed optimism about how emerging technologies, particularly AI, could enhance their efforts to make the transition more inclusive and accessible.

Rather than hundreds of volunteers going into people's homes to help, new TVs will have smarts (AI) built into them to hold your hand through learning how to use the TV, how to use its apps and how to use the internet

Robin Christopherson MBE, AbilityNet Head of Digital Inclusion

Public messaging will be essential. We believe it will be important for stakeholders to:

- Clearly explain what internet TV is (including the continued availability of channels like BBC One and ITV),
- Reassure users that familiar content will remain accessible, and
- Offer practical guidance on how to make the switch

Misconceptions persist – as highlighted in our workshops, where some participants believed internet TV meant the end of linear channels altogether. Addressing these misunderstandings will be key to a successful and inclusive transition.

5.2.2 Affordability is likely to remain a key barrier that must be addressed, but initiatives are in place

Affordability presents a clear but solvable challenge to achieving a full transition to internet-delivered TV. It comprises two main elements: the cost of connecting TVs, which is specific to the TV sector, and the cost of internet access, which is relevant to the UK's overall digital transition. Once TVs are connected to the internet, internet-delivered TV can be accessed for free (e.g. via Freely and BVOD and AVOD apps like BBC iPlayer and U from UKTV) or via affordable subscription packages such as Sky Essentials (£15pm).

- **The cost of getting TVs connected:** Accessing free internet-delivered TV requires a one-time purchase of equipment, such as a streaming stick, screen-casting device, HDMI cable or smart TV. Devices like Roku streaming sticks cost around £30, a comparable investment to the one required during the UK's analogue to digital switchover. Such devices may become available at an even lower price over time, especially eight to ten years in the future once component prices have come down. Indeed, we are already seeing this with

the cost of smart TVs themselves; Sky's newly launched Sky Glass Air smart TV costs just £6pm (which combined with a Sky Essentials subscription costs a total of £21pm).⁵⁹

Given that HDMI ports (the requirement to connect a device such as a streaming stick) have been standard on TVs since 2004 and second-hand TVs are widely available, most households are already well-positioned to connect. This is therefore a relatively easy challenge to solve.

- **Internet access:** This involves a monthly recurring fee rather than a one-off payment. BT research suggests around one million people in the UK live in households with incomes too low to afford any form of connectivity – fixed or mobile.⁶⁰ This group, largely working age but not in employment, faces a wider social exclusion issue that extends beyond TV. While targeted support will be essential to close this gap, it should be seen as part of the government's broader digital inclusion agenda, facilitating social and economic participation. There is also an existing voluntary industry solution by broadband providers to ensure that those receiving certain state benefits can afford a connectivity connection, through social tariffs.

Addressing these challenges sooner will bring broader benefits. Support mechanisms already exist:

- **Charitable initiatives** like the Good Things Foundation's National Databank provide mobile data to those in need
- **DSIT's Digital Inclusion Action Plan**, launched in February 2025, acknowledges the challenge of 'data poverty.' It notes that the price of broadband and mobile services has fallen in real terms in the past 5 years and broadband and mobile social tariffs offer a safety net. The plan includes government working with local authorities to consider how to signpost locations where people can get online for free and exploring options to expand the number of locations offering free connectivity, and engaging with MNOs to consider how to enable easier access to government websites and online services for those in data poverty⁶¹

Ofcom research from December 2024 finds that broadband costs are likely to continue decreasing in the coming years, assuming today's regulatory environment remains.⁶² Aligning efforts across government schemes, as recommended in the DSIT Digital Inclusion Action Plan, would further strengthen outcomes.

5.3 We have considered the idea of a 'nightlight'

In its report to Government on the future of TV distribution,⁶³ Ofcom identified three broad approaches to the future of DTT for industry and Government to consider. One of these was to 'reduce DTT down to a core service (known as a 'nightlight')'. In the subsequent debate, some have asked whether a nightlight via satellite might be a possibility.

To inform this discussion, we have examined the option of a 'nightlight' service that maintains a basic broadcast offering of core TV channels via DTT or satellite (DTH) after most services have moved online and considered whether this could serve as a temporary measure to delay addressing digital skills and affordability challenges.⁶⁴ While such a solution could provide continued access for those most reliant on traditional broadcast, it would mean a reduced service and would postpone, rather than resolve, the underlying issues.

⁵⁹ A sky subscription such as Sky Essentials is required for full functionality, but standard smart TV services can still be used without

⁶⁰ BT, *Digital inclusion: New insights and finding a sustainable way forward*, 2023. N.b. these individuals are not necessarily consumers of PSB TV content

⁶¹ DSIT, *Digital Inclusion Action Plan: First Steps*, 2025

⁶² Ofcom, *Pricing trends for communications services in the UK*, 2024

⁶³ Ofcom, *Future of TV Distribution: Early market report to Government*, 2024

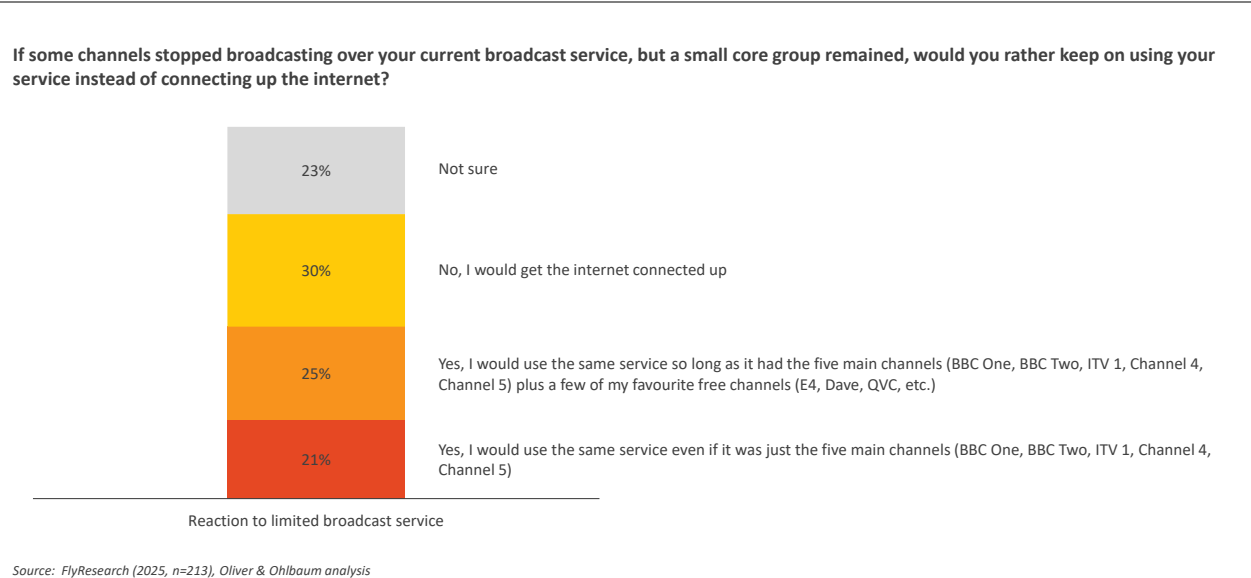
⁶⁴ Ofcom, *Future of TV Distribution: Early market report to Government*, 2024

it is worth noting that affordability and digital skills barriers will persist whether a switchover occurs in the mid-2030s or the 2040s. While the digital skills gap may narrow slightly over time due to demographic changes, affordability issues affecting mainly working-age individuals are unlikely to ease without targeted intervention. Indeed, DCMS forecasts (**Figure 16**) suggest that the number of unconnected TV households would fall by just 300,000 between 2035 and 2040 (in the event of no switchover decision), which indicates that there are limited benefits of delay.

5.3.1 A nightlight service would be unappealing to the majority of unconnected TV users

Although designed for those reluctant to switch to internet-delivered TV, the majority are unlikely to rely on a ‘nightlight’ service in practice, according to our survey. Only 21 per cent of broadband users who have not connected their TV set said that they would continue using DTT/DTH if their service was reduced to the five main PSB channels, rising to 46 per cent in the unlikely scenario that the service also included a few of their favourite commercial channels beyond this core five (**Figure 20**). This indicates that while the nightlight approach would be designed to cater for those not wanting to connect to the internet for television, it would encourage 30 per cent of them towards internet-delivered TV – but at significant expense.

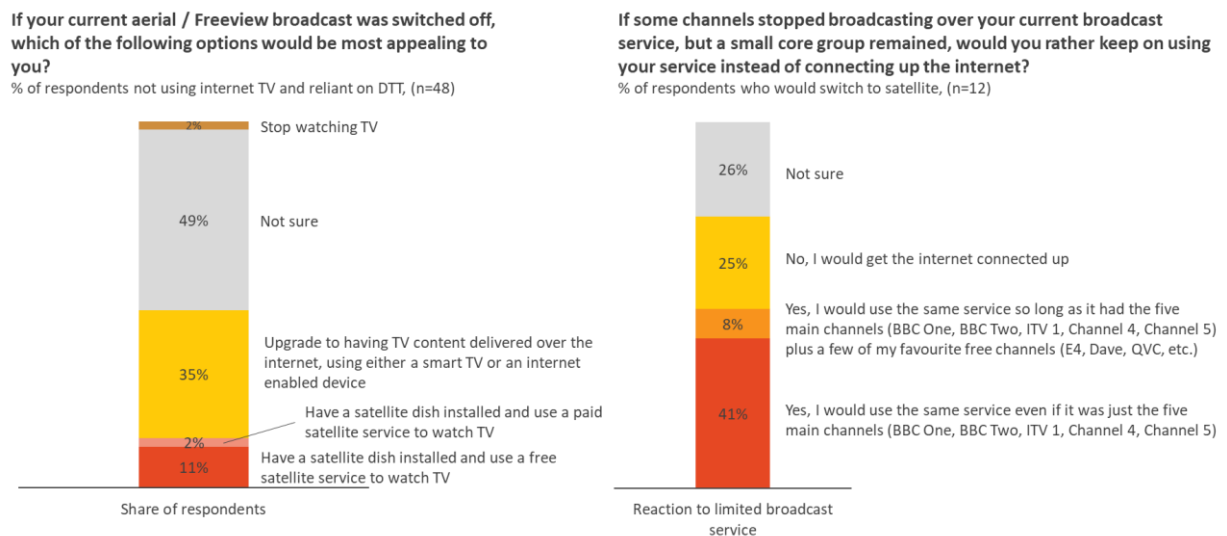
Figure 20: Intention to keep using a reduced DTT/DTH service, percentage of non-connected TV users within online survey universe



Crucially, no single nightlight solution would cover all affected users, as a DTT nightlight would not support DTH households, and vice versa.⁶⁵ Among Freeview-reliant viewers without internet TV access or upgrade intentions over the next decade, just 13 per cent said they would switch to satellite if Freeview ceased broadcasting (**Figure 21**). Of that group, only 41 per cent would use a reduced DTH service with five core channels, meaning only 5 per cent of Freeview viewers are likely to use such a service. This only increases marginally, to 6 per cent, if a few additional free-to-air channels were included. Ultimately, this shows there is almost no consumer appetite for a satellite nightlight.

⁶⁵ In this sense a DTH nightlight would be more inconvenient than a DTT nightlight: the DCMS *Future of TV Distribution* report placed the unconnected TV household at 3.2m DTT and 0.7m DTH households

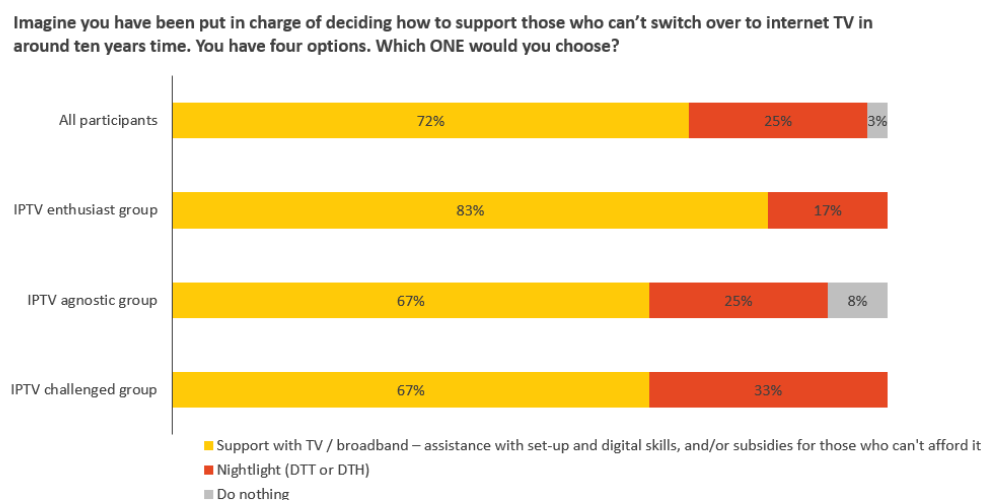
Figure 21: Potential usage of a satellite nightlight among Freeview users with no intention to otherwise take up connected TV within online survey universe



5.4 Ensuring a smooth and inclusive transition

Most people have already migrated to internet-delivered TV and by 2034 there will likely be only around 330,000 households who haven't yet upgraded, assuming a switch-off is announced in the late 2020s. Therefore, one of the options that the Government is considering is a complete transition. From our research, consumers would prefer resources to be directed towards supporting unconnected vulnerable groups to access internet-delivered TV than towards a delay in the form of a nightlight service. As **Figure 22** shows, in our consumer workshops, when faced with a trade-off between addressing skills and affordability issues directly versus via nightlight solutions, participants overwhelmingly chose the former with 72 per cent preferring this.

Figure 22: Preferred support option among all consumer workshop participants



A smooth transition relies on a shared evidence base and coordination – the UK now has a window to deliver that, working across industry and government.

Conclusion

6 Conclusion

As outlined in this report, internet-delivered TV is already a reality for many viewers across the UK. By 2024, 94 per cent of UK adults had internet access at home, and 92 per cent of viewers used a VOD service.⁶⁶ These services are delivering a significantly enhanced viewing experience compared to traditional distribution technologies like DTT. They make it easier for viewers to access the content they love; make TV more accessible with features like voice activation; and provide a more personalised experience with features like “continue watching” and personalised recommendations. Products like Sky Glass and Freely offer seamless integration of linear channels with streaming services, combining the best of both worlds and enabling television to continue delivering its core strengths in a modern, user-friendly way.

Across our online survey and consumer workshops, audiences have told us what they think, and their views are very positive. 93 per cent of connected TV users find its features useful – a figure that rises to 99 per cent among those aged over 70, demonstrating how the increased choice, flexibility and ease of use afforded by internet-delivered TV is particularly valued by older viewers.

Audiences are especially enthusiastic about features that enhance the core TV experience, such as expanded content choice, ‘pause and rewind’, ‘watch from the start’, and ‘continue watching’, as well as features that provide accessibility, where voice control has proven especially useful for disabled and older audiences. Looking ahead, there is also growing excitement about more advanced capabilities, including interactive and immersive content, and enhanced experiences on the big screen for services like video calling.

We anticipate that by the mid-2030s, most people will be fully using internet-delivered TV. Considering these developments, it is timely and appropriate that policymakers are considering the future of TV distribution.

This report is intended to support the Government’s consideration of the future of TV distribution

The DCMS Future of TV Distribution report and stakeholder forum provide a structured and collaborative framework for identifying, discussing, and refining future distribution options. In today’s globally competitive TV landscape, it is essential for policy and regulation to support continuing innovation, and not act as a hindrance, in order to deliver the benefits of IP delivered TV to all UK audiences.

Ofcom’s Future of TV Distribution market report to the Government sets out three broad policy approaches that could be taken:

1. **Investment in a more efficient DTT service** – assuming continued audience DTT use into the 2030s or where a managed transition to internet-delivered TV only is not preferred
2. **Reduce DTT down to a core service (known as a ‘nightlight’)** – retaining only essential channels as either a temporary or long-term fallback
3. **Move towards DTT switch-off over the 2030s** – supported by a structured campaign to ensure universal access to internet-delivered TV and promoting digital inclusion

To further develop the evidence base to inform decision making around the future of distribution, DCMS commissioned MTM/3 Reasons to forecast how TV households will evolve through to 2040. This research forecasts that the number of unconnected TV households, i.e. households that are not using internet-delivered TV, will fall

⁶⁶ Ofcom, *Online Nation*, 2024

from 3.9 million in 2023 to 1.5 million by 2040, driven by increased broadband penetration and demographic changes.

Our research provides additional evidence to contribute to this important discussion

In MTM/3 Reasons' forecasts, a significant portion of remaining unconnected homes by 2040 are 'broadband opt-outs' who have broadband available but choose not to take it up; however, evidence from past switchovers suggests that many of these would likely adopt broadband and internet-delivered TV services if a DTT switch-off was announced.

Historical precedent from the UK's 2012 analogue to digital switchover indicates that a clear deadline and strong public messaging can lead to a sharp late-stage uptake. Our illustrative estimate indicates how a well-managed switchover communications campaign could reduce the number of unconnected households to around 300,000 by the switchover year, after which the remaining households could be encouraged to transition via targeted support.

From our consumer research, we found that interest in a 'nightlight' option, whether by DTT or DTH satellite, was limited. As shown in Section 5.3.1, only 21 per cent of unconnected households said they would use a traditional TV service limited to five PSB channels, and just 5 per cent of DTT users would use this type of service if it was only available via DTH satellite. Furthermore, maintaining such services would require substantial investment, with DTT infrastructure alone likely to require hundreds of millions of pounds to remain operational.

Instead, participants in our workshops preferred investment in digital inclusion schemes. 72 per cent supported funding for skills and affordability programmes to help people adopt internet-delivered TV services, rather than investing in nightlight options or diverting resources elsewhere. Overall, our findings suggest strong consumer support for a well-managed switch-off in the 2030s and limited enthusiasm for maintaining other distribution technologies.

The next steps

As highlighted by Ofcom in its Future of TV Distribution report, it is now essential for Government to work with the broadcast and broadband industries to set out "a common vision for how to deliver universal TV services in future, followed by detailed planning". In Ofcom's view, an inclusive transition would take 8-10 years, so that Government is right to consider these issues now so that industry can be ready for any changes by the early 2030s.⁶⁷

Our research indicates a strong consumer appetite for a full transition to internet-delivered TV during the 2030s. Consumers in our research favoured forward-looking efforts focused on supporting vulnerable groups to access internet-delivered TV services. Digital inclusion is a much broader question and promises a wide range of social and economic benefits for the UK that extend well beyond the television sector.

As an immediate next step, the focus should be on continuing to build out a shared evidence base and defining an inclusive, sustainable transition that both supports innovation and further consumer benefits in the UK's internet-delivered TV future.

⁶⁷ Ofcom, *The Future of TV Distribution*, 2023

Appendix

7 Appendix

7.1 Glossary of terms

AVOD	Advertising Video on Demand: free to view with adverts
BVOD	Broadcaster Video on Demand: provided by broadcasters that also offer linear channels
Cable	Television delivered via a cable network
DTH	Direct-to-home: satellite TV, either free (e.g. Freesat) or paid (e.g. Sky). Sometimes also referred to as DSat
DTT	Digital Terrestrial Television: television content sent over radio spectrum to premises where it is received by an aerial
GVA	Gross Value Added: the contribution to the economy of each individual producer, industry, or sector, calculated as the value of goods and services produced minus the cost of intermediate inputs
HH	Household
Hybrid	Receiving TV through a mix of different distribution methods (e.g. IP and DTT)
IP	Internet protocol: the method of delivering data over the internet
IPTV	Any TV service delivered over an IP network including the public internet. IPTV services include Video on Demand and linear TV channels (also, Connected TV)
ISP	Internet Service Provider: a company that provides customers with access to the internet
LEO satellites	Low Earth Orbit satellites: satellite constellations that offer residential and business broadband to UK customers
Linear TV	Scheduled television programmes (as opposed to playback or on-demand services)
Pay TV	Subscription-based television services delivered via satellite, cable or via the internet
PSB	Public Service Broadcaster: BBC, Channel 3 (ITV and STV), Channel 4, Channel 5 and S4C in the UK
SVOD	Subscription Video on Demand: subscription-based service
UI	User Interface: includes the TV platform homepage, programme guides and menus, search features, etc.
VOD	Video on Demand: Umbrella term for services offering catalogues of programmes and streaming channels available for request on-demand by viewers
VR	Virtual reality: a simulated, three-dimensional environment that users can explore and interact with, often using a headset and other devices, providing an immersive experience

7.2 Primary research methodology notes

7.2.1 Consumer survey

Nationally representative sample

The survey results shown throughout this report are nationally representative for age and gender within five age bands between 18 and 79 years old. To ensure we had a robust number of responses from viewers who do not use internet-delivered TV services we set a quota to increase the number of these respondents in the survey. As such, we had 213 responses from non-connected TV users instead of the 117 a nationally representative sample of 1,000 viewers would normally imply. We have applied weightings to overall percentages to account for this.

Specific examples used in future of TV prompts

Table 1: TV feature prompts

Option	Example given
Better options to use your voice to control the TV	N/A
Improved picture / sound quality	N/A
Better content recommendations	N/A
AI assistant built into the TV	N/A
Social viewing	See your friends / family watching the same programme in the corner of your screen
Improved homepages	Easily choose programmes from all different services
Interactive experiences	Play along with your favourite game show live
More personalisation	Get news summaries for your area and the things you're following
Immersive experiences	Watch football like you are sat in the stadium
Increased access to live stats	See stats for your favourite player in sporting events
Improved safety	Create custom 'kids only' areas on your TV

Table 2: Extended TV uses prompts

Option	Example given
eHealth	Book and chat to a GP over the TV
Video calls	Easily chat to your loved ones on the big screen from the comfort of your sofa

eShopping	Buy something you liked when watching a programme
eExercise	Follow along with a virtual yoga class
eEducation	Take part in virtual classes to learn something new
eCooking	Follow how to make some new recipes
Connect your devices together	See your smart doorbell on the TV

7.2.2 Consumer workshops

Research partner

Consumer workshops were planned and run in concert with The Knowledge Agency's Mark Ellis. Mark is an experienced researcher, brand strategist and facilitator, with senior management experience in the consultancy, advertising and broadcasting industries. He set up The Knowledge Agency in 1998, after working as Chief Adviser, Market and Audience Intelligence in the BBC's Policy and Planning unit. The Knowledge Agency has extensive experience exploring complex strategy and policy issues with consumers, especially within the media industry, including running Ofcom's annual *Adults' Media Lives* study.

Workshop structure

While research into the future relies, by definition, on a degree of 'blue sky' thinking, members of the public naturally struggle to imagine what the possibilities are, and so we presented a range of possible scenarios to respond to and use as a springboard to hypothesise further. Therefore, we undertook a deliberative research methodology involving extended face-to-face workshops. Each workshop lasted 2 hours and was split into the following sections:

- Introduction of the concept of the internet as the primary means of TV distribution and collection of spontaneous reactions
- How IPTV can enhance the core TV service provided to viewers
- How connected TV sets might be able to provide additional services
- Barriers/concerns regarding broadband access
- Potential implications of switching off the broadcast TV signal

In each section, participants were provided with contextual information and potential future scenarios before allowing for a group discussion and some guided tasks.

Location and demographic choices

The consumer workshops were designed to capture a range of diverse opinions from viewers across the UK; each had twelve participants with a range of ages, social classes, and degrees of reliable internet access and a gender balance.⁶⁸

⁶⁸ The Devon workshop had seven men and five women due to a last-minute drop out

Table 3: Summary of consumer workshops

Workshop	Location	Details
Group 1: IPTV Enthusiasts	Glasgow	• ABC1, aged 20-35 • Primary means of viewing TV is streaming services such as Netflix, Amazon Prime Video, YouTube, or an online-led TV service
Group 2: IPTV Agnostic	Leeds	• C2DE, aged 35-50 • Mix of Sky, Virgin, BT, Freeview and Freesat customers. May include users of streaming services such as Netflix, Amazon Prime Video, YouTube, but this is not their primary means of viewing
Group 3: Limited IPTV access	Rural West Devon	• BC1C2D, aged 40-70 • Primary means of viewing TV is via a broadcast platform – Freeview, Freesat or Sky (satellite only). May include users of streaming services such as Netflix, Amazon Prime Video, YouTube, but this is not their primary means of viewing • Do not currently have easy access to superfast broadband – EITHER no broadband access at home at all, OR limited/capped internet access speed, OR dependent on supplementary technology such as Starlink or Airband to get internet access AND/OR regularly experience issues with the quality of their internet connection

7.3 Expert interviewees

Fraser Stirling: Global Chief Product Officer, Sky and Comcast

Fraser is the Global Chief Product Officer for Comcast and Sky. In this role, Fraser leads the teams across Comcast Cable and Sky that develop and design products to enhance their global technology platform and to seamlessly integrate voice search, discovery, apps and interactive features to deliver intuitive experiences to customers.

Ian Whittaker: Leading independent media analyst

Ian is a media analyst with over 20 years' experience as an equities analyst in the City. Twice City AM Analyst of the Year, he has a proven track record of identifying the latest trends, understanding industry dynamics and the implications for companies, and bringing this together with financial and markets expertise as well as knowledge of the wider macroeconomic, political and societal trends.

Dr William Webb: Independent telecoms expert

William is an internationally renowned engineer in the field of wireless communications technology. He is a Fellow of the Royal Academy of Engineering, Fellow of the Institute of Electrical and Electronics Engineers, and Fellow of the Institution of Engineering and Technology, where he previously served as President. He has been awarded three honorary doctorates, three visiting Professorships, and was previously Director of Technology Resources at Ofcom. He currently carries out a number of different roles, including Director of the Marconi Society.

Robin Christopherson MBE: Head of Digital Inclusion, AbilityNet

Robin is Head of Digital Inclusion at AbilityNet and is a leading authority in the global community of accessibility and digital inclusion specialists. Robin's own experience of sight-loss gives him a first-hand experience of the power of digital tech to transform people's lives. It has also made him a passionate and powerful advocate for accessibility, inclusive design and digital inclusion, making the case for social and technical changes to business, government, third sector, universities and many other organisations.

Kathrin Kluser: Media Specialist, OFCOM/BAKOM

The Federal Office of Communications (OFCOM/BAKOM) is the Swiss federal office that regulates telecommunications and broadcasting in Switzerland. Kathrin shared insights into Switzerland's experience of DTT switch-off in 2019.



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